

The 39th Annual Research Meeting of the Japanese Orthopaedic Association

Congress President, Hisateru Niki
Department of Orthopaedic Surgery,
St. Marianna University School of Medicine
Held in Tokyo, October 17 and 18, 2024

1st Day October 17 Room 1

8 : 00 ~ 9 : 30 **Symposium 1** **Moderators Y. Tanaka, I. Yoshimura**
The latest findings in osteoarthritis of the ankle from basic research: Toward improved walking ability

- 1-1-S1-1 Walking ability in the ankle osteoarthritis from the viewpoint of epidemiological study
.....*Akinobu Nishimura, et al.*, Dept. of Orthop. and Sports Medicine,
Mie Univ. Graduate School of Medicine...S1701
- 1-1-S1-2 Gait analyses of ankle osteoarthritis
.....*Tomoyuki Nakasa, et al.*, Dept. of Artificial Joints and Biomaterials,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1701
- 1-1-S1-3 Relationship between patient psychology and gait function
.....*Tetsuro Yasui*, Dept. of Orthop. Surg., Teikyo Univ. Hosp., Mizonokuchi...S1702
- 1-1-S1-4 The relationship between ankle osteoarthritis and locomotive syndrome
.....*Hiroyuki Mitsui, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1702
- 1-1-S1-5 Influences of the deformity on patients with osteoarthritis of the ankle:
New findings from diagnostic imaging
.....*Hiroaki Kurokawa, et al.*, Dept. of Orthop. Surg., Nara Medical Univ...S1703

9 : 40 ~ 11 : 10 **Symposium 2** **Moderators T. Yasuda, M. Kubota**
The forefront of biomechanics of the foot and ankle

- 1-1-S2-1 Biomechanics in severe hallux valgus with dislocation in the 2nd metatarsophalangeal joint
.....*Akira Taniguchi, et al.*, Dept. of Orthop. Surg., Nara Medical Univ...S1703
- 1-1-S2-2 Biomechanics of PCFD
.....*Hiroyuki Mitsui, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1704
- 1-1-S2-3 Biomechanics of osteochondral lesion of the talus
.....*Tomoyuki Nakasa, et al.*, Dept. of Artificial Joint and Biomaterials, Hiroshima Univ...S1704
- 1-1-S2-4 Mechanism of posterior malleolar fracture of the ankle
.....*Naoki Haraguchi, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. Yokohama Seibu Hosp...S1705
- 1-1-S2-5 Biomechanics of the distal tibiofibular syndesmosis injuries
.....*Atsushi Teramoto, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ...S1705

11 : 30 ~ 12 : 30 **Luncheon seminar 1** **Moderator T. Kanemura**

- 1-1-LS1-1 Robotic spine surgery : The future is now
.....*Ronald A. Lehman, Jr.*, The Daniel and Jane Och Spine Hosp./Columbia Univ...S1706

12 : 40 ~ 12 : 50 **Opening ceremony**

12 : 50 ~ 13 : 20	Congress President lecture	Moderator Y. Nakashima
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1-1-PL Taking on new challenges
 *Hisateru Niki*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1706

13 : 30 ~ 14 : 30	Invited lecture 1	Moderators K. Nishida, Y. Tajiri
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1-1-IL1 Future trend of value based orthopaedic care in the U.S. : Can we quantify?
 *Charles S. Day, et al.*, Henry Ford Health, MSU CHM, Detroit, MI, USA...S1707

14 : 40 ~ 15 : 40	Invited lecture 2	Moderators M. Beppu, R. Kuroda
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1-1-IL2 Mental health and tennis *Brian Hainline*, United States Tennis Association, USA...S1707

1st Day October 17 Room 2

8 : 00 ~ 11 : 20 **Combo Session A**

Masterclass in regenerative medicine: Practical know-how from fundamentals to clinical

8 : 00 ~ 9 : 00	Combo A/ Instructional lecture	Moderators N. Tsumaki, M. Sato
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1-2-CAEL-1 Regenerative medicine for osteoarthritis of the knee using cell sheet transplantation
 *Masato Sato*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S1708

1-2-CAEL-2 Researching and translating articular cartilage regeneration using allogeneic iPSC-derived
 cartilage transplantation *Noriyuki Tsumaki*, Dept. of Tissue Biochem., Osaka Univ...S1708

9 : 10 ~ 10 : 10	Combo A/ Symposium 1	Moderators N. Adachi, N. Tsumaki
From research focus to animal experiments		

1-2-CAS1-1 Cartilage regeneration with hiPSC-derived limb bud mesenchymal cells
 *Takeshi Takarada*, Dept. of Reg. Sci., Okayama Univ...S1709

1-2-CAS1-2 Cartilage regeneration using mesenchymal stem cell magnetic targeting
 *Naosuke Kamei, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1709

1-2-CAS1-3 ABC in Research for studying the treatment and etiology of intervertebral disc degeneration
 *Daisuke Sakai, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S1710

10 : 20 ~ 11 : 20	Combo A/ Symposium 2	Moderators N. Iwasaki, M. Sato
Advancements in regenerative medicine: from translational research to clinical applications		

1-2-CAS2-1 Regenerative medicine/cell therapy for meniscus injury: From translational research to
 clinical practice *Ichiro Sekiya, et al.*, Center for Stem Cell and Regenerative Medicine,
 Tokyo Medical and Dental Univ...S1710

1-2-CAS2-2 Regenerative medicine for spinal cord injury using iPS cells
 *Narihito Nagoshi, et al.*, Dept. of Orthop. Surg., Keio Univ...S1711

1-2-CAS2-3 Nerve regeneration by Bio 3D nerve conduit using a bio-3D printer for peripheral
 nerve injury *Ryosuke Ikeguchi, et al.*, Rehabilitation Units, Kyoto Univ. Hosp...S1711

11 : 30 ~ 12 : 30	Luncheon seminar 2	Moderator N. Nakamura
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1-2-LS2-1 Development and clinical application of novel cartilage tissue engineering technique based on
 soft-material research *Norimasa Iwasaki*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1712

13 : 30 ~ 14 : 30 Special lecture 1

Moderator M. Tanaka

- 1-2-SL1 What medical professionals need to know about LGBTQ: Equity in access to health care from a medical ethics perspective
.....*Eriko Yoshida*, Nijiro Doctors/Dept. of General Internal Medicine Kawasaki Kyodo Hosp.···S1712

14 : 40 ~ 18 : 00 Combo Session I

**Revolutionizing diagnosis and treatment of orthopaedic disorders with AI:
Roadmap from fundamentals to clinical applications**

14 : 40 ~ 15 : 40 Combo I/ Symposium 1

Moderators K. Takeshita, T. Moro

The fundamentals of medical AI research and development

- 1-2-CIS1-1 Keynote lecture: Before starting medical AI research and development
.....*Toru Moro*, Div. of Science for Joint Reconstruction,
Graduate School of Medicine, The Univ. of Tokyo
- 1-2-CIS1-2 Trends and issues in medical AI research and development in Japan
.....*Ryuji Hamamoto*, Div. Medical AI Res. Dev., Natl. Cancer Ctr. Res. Inst.···S1713
- 1-2-CIS1-3 Fundamentals of modern AI: From deep learning to ChatGPT
.....*Hideki Nakayama*, UTokyo, Grad. School of IST···S1713
- 1-2-CIS1-4 Regulation of medical devices using AI
.....*Sara Takahashi*, Medical Device Evaluation Div, Pharmaceutical Safety Bureau, MHLW···S1714
- 1-2-CIS1-5 Intellectual property protection in light of AI research
.....*Keiko Honda*, TODAI TLO···S1714
- 1-2-CIS1-6 Support for development of medical devices using AI by METI
.....*Yoshiho Yukita*, METI···S1715

15 : 45 ~ 16 : 55 Combo I/ Symposium 2

Moderators K. Watanabe, T. Moro

The practical aspects of AI research and development in orthopaedics

- 1-2-CIS2-1 Development of an AI-based support tool for scoliosis treatment
.....*Kota Watanabe*, Dept. of Orthop. Surg., Keio Univ.···S1715
- 1-2-CIS2-2 Musculoskeletal screening using CT images
.....*Keisuke Uemura, et al.*, Dept. of Orthop. Medical Engineering,
Graduate School of Medicine, Osaka Univ.···S1716
- 1-2-CIS2-3 Application of object detection AI model in medical checkup for throwing elbow
.....*Atsuyuki Inui, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine···S1716
- 1-2-CIS2-4 Gait based novel prediction system using artificial intelligence:
Application for knee osteoarthritis
.....*Ken Kadoya, et al.*, Dept. of Advanced Medicine for Locomotor System,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1717
- 1-2-CIS2-5 The potential of ChatGPT as a self-diagnostic tool in common orthopaedic diseases
.....*Koji Fujita, et al.*, Div. of Medical Design Innovations Open Innovation Center,
Institute of Research and Innovation Tokyo Medical and Dental Univ.···S1717
- 1-2-CIS2-6 Utilizing large language model in rheumatoid arthritis and orthopaedics
.....*Ryuichi Nakahara*, Dept. of Musculoskeletal Health Promotion,
Faculty of Medicine, Okayama Univ.···S1718

17 : 00 ~ 18 : 00 Combo I/ Instructional lecture

Moderators H. Oka, R. Nakahara

- 1-2-CIEL-1 Next-generation telemedicine specializing in rheumatoid arthritis embodied by IoT and AI
.....*Atsushi Kawakami, et al.*, Dept. of Immunology and Rheumatology, Nagasaki Univ.···S1718

- 1-2-CIEL-2 AI-assisted diagnostic system for osteoporosis using the X-ray images
*Toru Moro*, Div. of Science for Joint Reconstruction,
 GraduateSchool of Medicine, The Univ. of Tokyo...S1719

1st Day October 17 Room 3

8 : 00 ~ 9 : 30 Symposium 3 **Moderators T. Noda, M. Ito**
Image analysis and mechanical research in fracture treatment: Clinical applications

- 1-3-S3-1 Development of image processing technologies in upper extremity fracture treatment and prospects for clinical application
*Yuichi Yoshii, et al.*, Dept. of Orthop. Surg., Tokyo Medical Univ. Ibaraki Medical Center...S1719
- 1-3-S3-2 Measurement of bone morphology in femoral fractures and its clinical application
*Takashi Maehara*, Dept. of Orthop. Surg., Kagawa Rosai Hosp...S1720
- 1-3-S3-3 Visualization of mechanical behavior in fracture treatment using finite element analysis: From basic research to clinical application
*Yusuke Matsuura, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S1720
- 1-3-S3-4 Load-bearing function of trans-sacral screw fixation for fragility fractures of the pelvic using finite element analysis
*Satoshi Nakasone, et al.*, Orthop. Surg., Graduate School of Medicine, Univ. of the Ryukyus...S1721
- 1-3-S3-5 Clinical result and fine element analysis for the atypical subtrochanteric femoral fracture
*Naofumi Shiota, et al.*, Dep. of Orthop. Surg. and Rehabilitation,
 NHO Okayama Medical Center...S1721

9 : 40 ~ 10 : 40 Invited lecture 3 **Moderators K. Chiba, H. Tsuchiya**

- 1-3-IL3 Revolutionizing prosthetics
*Robert Stephen Armiger*, Johns Hopkins Univ. Applied Physics Laboratory, USA...S1722

11 : 30 ~ 12 : 30 Luncheon seminar 3 **Moderator H. Tsuchiya**

- 1-3-LS3-1 Challenges in diagnosis and treatment option for osteoporosis
*Ken Kumagai*, Dept. of Musculoskeletal Science,
 Yokohama City Univ., Graduate School of Medicine...S1722

13 : 30 ~ 14 : 30 Instructional lecture 1 **Moderator A. Teramoto**

- 1-3-EL1 Principles and limitations of joint mechanical test robotic systems: Dynamic deformation measurement and function analysis of the ACL enthesis
*Hiromichi Fujie, et al.*, Tokyo Metropolitan Univ...S1723

14 : 40 ~ 16 : 10 Symposium 4 **Moderators A. Matsumine, M. Endo**
New developments in immunotherapy for bone and soft tissue sarcomas

- 1-3-S4-1 Perspective for the new immunotherapy for sarcoma
*Tomohide Tsukahara, et al.*, Dept. of Pathology, Sapporo Medical Univ...S1723
- 1-3-S4-2 Alpha-radioimmunotherapy with ²²⁵Ac-labeled OTSA101 for synovial sarcoma
*Hitomi Sudo, et al.*, iQMS, QST...S1724
- 1-3-S4-3 NY-ESO-1 specific T cell therapy for sarcoma
*Mikiya Ishihara*, Dept. of Medical Oncol., Osaka Int'l Cancer Inst...S1724
- 1-3-S4-4 Cellular immune therapy for synovial sarcoma
*Naoki Oike, et al.*, Div. of Orthop. Surg., Dept. of Regenerative and Transplant Medicine,
 Niigata Univ. Graduate School of Medical and Dental Sciences...S1725

- 1-3-S4-5 Development status and evolving insights of immune checkpoint inhibitors for sarcoma
 *Yuki Kojima*, NCCH...S1725

16 : 20 ~ 17 : 50 Symposium 5 Moderators E. Kobayashi, M. Hirata
Advances in genomic medicine for sarcomas

- 1-3-S5-1 Advances in cancer gene panels: Features of GenMineTOP
 *Hiroshi Kobayashi*, Dept. of Orthop. Surg., The Univ. of Tokyo Hosp., The Univ. of Tokyo...S1726
- 1-3-S5-2 Cancer gene panel for identification of fusion gene in sarcoma
 *Satoshi Takenaka, et al.*, Dept. of Orthop. Surg., OICI...S1726
- 1-3-S5-3 Clinical sequence of cancer genome panel using C-CAT data
 *Eiji Nakata, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S1727
- 1-3-S5-4 Clinical trials and treatments based on cancer genome profiling tests in sarcoma
 *Tatsunori Shimoi*, NCCH...S1727
- 1-3-S5-5 Germline findings and their management in comprehensive cancer genomic panel testing
 *Makoto Hirata*, Dept. of Genet. Med. & Services, NCCH...S1728

1st Day October 17 Room 4

8 : 00 ~ 9 : 30 Symposium 6 Moderators K. Oe, K. Matsushita
Topics from clinical practice guidelines for the management of MRSA infections, 2024 edition

- 1-4-S6-1 Is preoperative MRSA eradication recommended?
 *Hiroaki Hata*, Dept. of Surg. and Infection Control and Prevention, NHO,
 Kyoto Medical Center...S1728
- 1-4-S6-2 Effect of intrawound vancomycin powder on surgical site infection prevention in major
 orthopaedic surgery
 *Eiichiro Iwata, et al.*, Dept. of Orthop. Surg., and Rehabilitation Medicine, Nara City Hosp...S1729
- 1-4-S6-3 Is the use of antibiotic-loaded bone cement useful in the prevention of deep postoperative
 surgical site infection?
 *Katsufumi Uchiyama, et al.*, Dept. of Patient Safety and Healthcare Administration,
 Kitasato Univ. School of Medicine...S1729
- 1-4-S6-4 Is the combination of RFP effective for implant infections in the orthopaedic field?
 *Emi Kamono, et al.*, Dept. of Orthop. Surg., Yokohama City Univ. Medical Center...S1730
- 1-4-S6-5 Appropriate antibiotic therapy in the orthopaedic clinical practice
 *Shigeru Fujimura*, Tohoku Med. Pharm. Univ., Div. of Clin. Infect. Dis. & Chemother...S1730

9 : 40 ~ 11 : 10 Symposium 7 Moderators J. Takahashi, T. Jinno
Deepening of imaging diagnostic techniques in the orthopaedic field

- 1-4-S7-1 Whole-body alignment assessment using the sterEOS imaging system
 *Hyonmin Choe, et al.*, Dept. of Orthop. Surg., Yokohama City Univ...S1731
- 1-4-S7-2 Dynamic CT image analysis in the spine
 *Keigo Ito*, Dept. of Orthop. Surg., Chubu Rosai Hosp...S1731
- 1-4-S7-3 Diagnosis of musculoskeletal tumors using deep learning on MRI images
 *Sadayuki Ito, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S1732

1-4-S7-4 3D MRI analysis of knee cartilage and meniscus
*Nobutake Ozeki, et al.*, Center for Stem Cell and Regenerative Medicine,
 Tokyo Medical and Dental Univ.··S1732

1-4-S7-5 Dynamic analysis of the sacroiliac joint using upright 3D-MRI
*Masaki Takao, et al.*, Dept. of Orthop. Surg., Ehime Univ. Graduate School of Medicine··S1733

11 : 30 ~ 12 : 30 Luncheon seminar 4 Moderator T. Miyamoto

1-4-LS4-1 Current status and future of precision medicine in rheumatoid arthritis
*Keishi Fujio*, Dept. of Allergy and Rheumatology,
 Graduate School of Medicine, The Univ. of Tokyo··S1733

13 : 30 ~ 14 : 30 Instructional lecture 2 Moderator M. Matsumoto

1-4-EL2 Basic researches to progress total en bloc spondylectomy
*Hideki Murakami*, Dept. of Orthop. Surg., Nagoya City Univ.,
 Graduate School of Medical Sciences··S1734

14 : 40 ~ 15 : 40 Instructional lecture 3 Moderator Y. Suda

1-4-EL3 Musculoskeletal sports science and medicine for orthopaedic surgeon
*Tsukasa Kumai*, Faculty of Sport Sciences, Waseda Univ.··S1734

15 : 50 ~ 16 : 50 Instructional lecture 4 Moderator S. Matsuda

1-4-EL4 New conservative therapy for osteoarthritis of the knee
*Kenji Takahashi*, Dept. of Orthop., Graduate School of Medical Science,
 Kyoto Prefectural Univ. of Medicine··S1735

17 : 00 ~ 18 : 00 Instructional lecture 5 Moderator T. Majima

1-4-EL5 Basic research for improving outcomes of anterior cruciate ligament reconstruction
*Yasuyuki Ishibashi*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine··S1735

1st Day October 17 Room 5

8 : 00 ~ 9 : 00 Free papers Spinal cord: Pathology, others 1 Moderators T. Tachibana, H. Katoh

1-5-1 Plastic changes of neurons and pericellular synapses in spinal cord after peripheral nerve injury
*Katsuyuki Konishi, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1736

1-5-2 Comparative study about neural tract specificity of Wallerian degeneration after spinal cord injury
*Yohei Sodeyama, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1736

1-5-3 Elucidation of the mechanism of non-scar forming by neonatal astrocytes after spinal cord injury
*Jun Kishikawa, et al.*, Dept. of Orthop. Surg., Clinical Medicine,
 Graduate School of Medical Sciences, Kyushu Univ.··S1737

1-5-4 Profiling of cerebrospinal fluid and blood EVs-miRNAs for predicting natural recovery from acute
 spinal cord injury in rat models*Tomoharu Tanaka, et al.*, Dept. of Orthop. Surg., Keio Univ.··S1737

1-5-5 Spinal cord injury regeneration: Approaches from angiogenesis and lymphangiogenesis
*Yuki Matsumoto, et al.*, Dept. of Orthop. Surg., Keio Univ.··S1738

1-5-6 A novel animal model of lumbar spinal stenosis elucidates energy imbalance in axons as a main
 pathology of intermittent claudication*Hidemasa Terao, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1738

- 1-5-7 Efficacy of early decompression by severity in rodent models of cervical spinal cord injury without radiographic abnormality
 *Yuki Nagashima, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S1739

9 : 10 ~ 10 : 10	Free papers	Moderators N. Hosogane, T. Morimoto
Spinal cord: Pathology, others 2		

- 1-5-8 Involvement of laminin in the process of spinal cord white matter formation
 *Tetsuto Yamaura, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ.··S1739
- 1-5-9 Quantitative assessment for intradural extramedullary spinal tumor using the contrast ratio on MRI *Toshio Nakamae, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1740
- 1-5-10 Development of a prognostic model for bladder and rectal dysfunction in traumatic spinal cord injury patients using machine learning
 *Takaki Kitamura, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S1740
- 1-5-11 Conservative treatment outcome prediction model for proximal-type cervical spondylotic amyotrophy using machine learning
 *Yusuke Ichihara, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine··S1741
- 1-5-12 Challenging to establish a new diagnosis tool and conservative therapy for cervical spondylotic myelopathy: Transcranial direct current stimulation
 *Ryosuke Miyamoto, et al.*, Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine··S1741
- 1-5-13 Relationship between spinal sagittal alignment and degenerative spondylolisthesis in a community population: A Cross sectional observational study
 *Takaaki Nakano, et al.*, Dept. of Orthop. Surg., Kuroishi Hosp.··S1742
- 1-5-14 Analysis of risk factor of derilium and surgical patient after spinal cord injury: A single-center, retrospective cohort study
 *Kosuke Nita, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine··S1742

10 : 20 ~ 11 : 20	Free papers	Moderators T. Miyamoto, Y. Kawaguchi
Tendon and ligament: Pathology 1		

- 1-5-15 Analysis of DNA methylation array and proteomics in pathogenesis with ossification of the posterior longitudinal ligament in cervical spine
 *Takafumi Yayama, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science··S1743
- 1-5-16 Effects of anti-aging factors on cytokines on ossification of the posterior longitudinal ligament of the cervical spine *Hideki Saito, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science··S1743
- 1-5-17 The role and expression analysis of exosomes from patients with ossification of the spinal ligament on the progression of osteogenic differentiation
 *Hideaki Nakajima, et al.*, Dept. of Orthop. and Rehabilitation Medicine,
 Faculty of Medical Sciences, Univ. of Fukui··S1744
- 1-5-18 Impact of visceral fat obesity on the development of ossification of the posterior longitudinal ligament *Miura Soya, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1744
- 1-5-19 Regulation of angiogenetic factor action by DNA methylation array in patients with ossification of the ligamentum flavum
 *Yuya Chosei, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science··S1745
- 1-5-20 Prevalence and etiology of diffuse idiopathic skeletal hyperostosis (DISH) in elderly community residents Bunkyo Health Study *Yuta Sugawara, et al.*, Dept. of Orthop., Juntendo Univ.··S1745
- 1-5-21 Cross-sectional study of early phase diffuse idiopathic skeletal hyperostosis in the general population
 *Kairo Wada, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine··S1746

11 : 30 ~ 12 : 30	Luncheon seminar 5	Moderator Y. Kadono
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- 1-5-LS5-1 Rheumatoid arthritis treatment based on patient background to prevent D2T-RA
*Kimito Kawahata*, Dept. of Rheumatology and Allergology,
 St. Marianna Univ. School of Medicine...S1746

13 : 30 ~ 14 : 30	Free papers Soft tissue tumors 1	Moderators T. Morii, T. Akiyama
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- 1-5-22 Exploring the genetic profile of invasive soft tissue sarcoma
*Akane Ariga, et al.*, Dept. of Orthop. and Spinal Surg.,
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ...S1747
- 1-5-23 Spatial transcriptome analysis of soft tissue tumors
*Yoshiyuki Suehara, et al.*, Div. of Cellular Signaling, NCC...S1747
- 1-5-24 Time-to-treatment initiation analysis in patients with non-small round cell sarcomas at extremities
*Sakurako Takahashi, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1748
- 1-5-25 Establishment of a new model for sarcoma using zebrafish and development of novel drugs
 targeting fusion genes*Takanao Kurozumi, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S1748
- 1-5-26 The significance of identification of fusion gene by cancer gene panel in sarcoma
*Eiji Nakata, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S1749
- 1-5-27 MYLK2 and 4 phosphorylate CDKAL1 and promote the maintenance of cancer stem-like cells
*Takuto Itano, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S1749
- 1-5-28 Aberrantly highly expressed PVR in MPNST contributes to cancer malignancy and may be a
 therapeutic target*Naoya Nakahashi, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ...S1750

14 : 40 ~ 15 : 40	Free papers Spinal cord: Regeneration, treatments 1	Moderators H. Ozawa, H. Nakajima
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- 1-5-29 Effects of mechanical stress on the repair process after spinal cord injury: Antervertebral fusion
 promotes functional recovery*Atsushi Sakuraba, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1750
- 1-5-30 Reverse translational research on Muse cells therapy for spinal cord injury: Research on the
 therapeutic time window*Kotaro Sakashita, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba...S1751
- 1-5-31 Human iPS-derived neural stem progenitor cell transplantation for severe cervical spinal cord
 injury in chronic phase*Ryo Ogaki, et al.*, Dept. of Orthop. Surg., Keio Univ...S1751
- 1-5-32 Electrically engineered neurotrophic astrocytes revive targeted motor neurons after spinal
 cord injury*Kazuki Kitade, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ...S1752
- 1-5-33 The effect of the GLP-1 receptor agonist on mitochondria dysfunction after spinal cord injury
*Tatsuya Kishi, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S1752
- 1-5-34 Changes in neural activity in cortical motor cortex due to spinal cord injury
*Yukihito Ode, et al.*, Dept. of Orthop./Rheumatology,
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
 Graduate School of Medicine, Nagoya Univ...S1753

- 1-5-35 Zinc deficiency impairs axonal regeneration and functional recovery after spinal cord injury by modulating macrophage polarization via NF- κ B pathway
*Ken Kijima, et al.*, Dept. of Orthop. Surg., Clinical Medicine,
 Graduate School of Medical Sciences, Kyushu Univ.··S1753

15 : 50 ~ 16 : 50	Free papers	Moderators H. Haro, T. Aizawa
Spinal cord: Regeneration, treatments 2		

- 1-5-36 In-vivo RNA interference of RAPTOR/mTORC1 protects against disc degeneration in a rat tail temporary static compression model
*Naotoshi Kumagai, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1754
- 1-5-37 Immunoreceptor CD300a inhibits cell migration of Astrocytes
*Mana Komatsu, et al.*, Med., Univ. of Tsukuba··S1754
- 1-5-38 Therapeutic effects of combined therapy involving scar resection, decellularized scaffold, and iPSC-NS/PCs transplantation in chronic complete SCI
*Keitaro Ito, et al.*, Dept. of Orthop. Surg., Keio Univ.··S1755
- 1-5-39 Extraction of PRP-derived exosomes and their effects on intervertebral disc cells
*Kento Watanabe, et al.*, Dept. of Musculoskeletal Surg.,
 Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine··S1755
- 1-5-40 Comparison of the usefulness of novel Alaska pollock-derived gelatin sealant and fibrin glue in dural injury models*Takumi Ono, et al.*, Dept. of Orthop. Surg., Keio Univ.··S1756
- 1-5-41 Evaluation of telomerase-specific oncolytic adenovirus infection to spinal tumors for therapeutic use*Ryo Takatori, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ.··S1756
- 1-5-42 Development of a web application for predicting neurological outcome at hospital discharge in spinal cord injury patients: A machine learning approach
*Kyota Kitagawa, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S1757

17 : 00 ~ 18 : 00	Free papers Intervertebral disc	Moderators M. Doita, M. Takahashi
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- 1-5-43 Comparative study of RNA interference and CRISPR-Cas9 targeting mTOR signaling in intervertebral disc degeneration
*Masao Ryu, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1757
- 1-5-44 Transient receptor potential vanilloid 4 (TRPV4) knockdown suppresses autophagy and extracellular matrix synthesis in rat intervertebral disc cells
*Tomoya Matsuo, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1758
- 1-5-45 Systemic administration of beta-Nicotinamide mononucleotide attenuates mechanical stress-induced intervertebral disc degeneration and associated pain
*Shota Tamagawa, et al.*, Dept. of Orthop., Juntendo Univ.··S1758
- 1-5-46 SOD2 regulates oxidative stress in the intervertebral disc during aging
*Shota Tamagawa, et al.*, Dept. of Orthop., Juntendo Univ.··S1759
- 1-5-47 Differential functional characteristics of Tie2-expressing nucleus pulposus progenitor cells in young versus old donors: for intervertebral disc regeneration
*Yuto Otani, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ.··S1759
- 1-5-48 The key to post-surgical pain reduction: The surprising link between lumbar degenerative disease and IL-6 gene expression
*Akihiko Hiyama, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ.··S1760
- 1-5-49 Evaluation of the effects of Bag3 and the associated factors in nucleus pulposus cells under oxidative stress*Kaori Suyama, et al.*, Dept. of Anatomy, Tokai Univ.··S1760

1st Day October 17 Room 6

8 : 00 ~ 9 : 00 Free papers

Moderators M. Osaki, A. Kaneuji

Osteoarthritis: Pathology, others 1

- 1-6-1 Preoperative activity level of patients who underwent total hip arthroplasty has a distinctive impact on postoperative recovery process and FJS-12
 ... *Takehiro Kaneoka, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine...S1761
- 1-6-2 Local inflammatory cytokines and bone destruction in an animal model of rapidly destructive coxarthropathy
 *Yasuhiro Furihata, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S1761
- 1-6-3 Characteristics of spinal alignment in patients with osteoarthritis of the hip without flexion contracture due to developmental dysplasia of the hip
 *Hiroyuki Yamagata, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S1762
- 1-6-4 AI estimation of mechanical loading on the hip joint: Validation of accuracy improvement by combining kinematic information datasets
 *Takuya Ibara, et al.*, Dept. of Functional Joint Anatomy,
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ...S1762
- 1-6-5 Factors associated with cam deformity in Japanese local residents
 *Koichi Tomomatsu, et al.*, Naga Municipal Hosp...S1763
- 1-6-6 Cyclic compressive mechanical loading reduces by down-regulation of energy metabolism and mitochondria function in chondrocytes
 *Koh Terauchi, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1763
- 1-6-7 Identification of possible biomarker for leukocytes of hand osteoarthritis patients using DNA methylation array *Takashi Kuroiwa, et al.*, Dept. of Orthop. Surg., Fujita Health Univ...S1764

9 : 10 ~ 10 : 10 Free papers

Moderators N. Fukui, S. Kobayashi

Osteoarthritis: Pathology, others 2

- 1-6-8 Distribution of coronal plane alignment of the knee (CPAK) classification does not change as knee OA progresses
 *Kazuki Nomoto, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S1764
- 1-6-9 Protocol for 3D imaging of porcine meniscus with CUBIC tissue clearing
 *Chika Lee, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ...S1765
- 1-6-10 Development of a knee structure evaluation method for a rat knee osteoarthritis (OA) model using Micro CT *Tatsunori Ikemoto, et al.*, Dept. of Orthop. Surg., Aichi Medical Univ...S1765
- 1-6-11 Sex differences in IL-24 expression in synovial tissues of patients with osteoarthritis and its involvement in pain *Naoya Shibata, et al.*, Dept. of Orthop. Surg., Kitasato Univ...S1766
- 1-6-12 An investigation into the different compositional subsets of synovial and adipose mesenchymal stem cells *Yuki Hidaka, et al.*, Center for Stem Cell and Regenerative Medicine,
 Tokyo Medical and Dental Univ...S1766
- 1-6-13 Analysis of inhibitory effects of SIRT1 against meniscus degeneration
 *Shohei Sano, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S1767
- 1-6-14 Analysis of ion channels and cytokine expression using synovial fibroblasts derived from knee joints in degenerative joint diseases
 *Kosuke Kumagai, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science...S1767

10 : 20 ~ 11 : 20 Free papers
Osteoarthritis: Pathology, others 3

Moderators K. Urabe, S. Otsuki

- 1-6-15 Comprehensive analysis of novel N-Glycan biomarkers in serum of osteoarthritis
.....*Tomohiro Onodera, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1768
- 1-6-16 Biologically active TGF-beta1 is released at significant levels from osteoarthritic cartilage by
compressive loading
.....*Nobuho Tanaka, et al.*, Clinical Research Center for Allergy and Rheumatology,
NHO Sagamihara National Hosp.··S1768
- 1-6-17 Examination of tenascin-C, syndecan-4 and related factors in co-cultures of chondrocytes and
synovium cells*Gai Kobayashi, et al.*, Dept. of Musculoskeletal Surg.,
Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine··S1769
- 1-6-18 Endothelin-1 may be involved in the generation of synovial pain and joint stiffness in
knee osteoarthritis
.....*Hirotsuka Tsuno, et al.*, Dept. of Rheumatol., NHO Sagamihara National Hosp.··S1769
- 1-6-19 Correlation analysis between knee joint cartilage degeneration and distribution of reactive
oxygen species*Kaneko Yosuke, et al.*, Dept. of Orthop. Surg., Fujita Health Univ.··S1770
- 1-6-20 Investigating the pathogenesis of knee osteoarthritis using single cell RNA sequencing on
articular chondrocytes
.....*Yu Kobori, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ.··S1770
- 1-6-21 Effects of meniscus extrusion on distribution patterns of subchondral bone density across knee
joint for medial knee osteoarthritis: Comparison with non-osteoarthritic knee
.....*Taku Ebata, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1771

11 : 30 ~ 12 : 30 Luncheon seminar 6

Moderator K. Goto

Prevention of complications following total hip arthroplasty: Infection and fracture

- 1-6-LS6-1 Strategies for the prevention of infection in total hip arthroplasty
.....*Masanori Fujii*, Dept. of Orthop. Surg., Saga Univ.··S1771
- 1-6-LS6-2 Prevention of periprosthetic femoral fractures in the cemented hip arthroplasty
.....*Yasuhiko Takegami*, Dept. of Orthop./Rheumatology,
Nagoya Univ. Graduate School of Medicine··S1772

13 : 30 ~ 14 : 30 Free papers
Osteoarthritis: Treatments 1

Moderators T. Nakagawa, A. Kuwasawa

- 1-6-22 The pharmacological mechanism of CNP in alleviating osteoarthritis
.....*Riko Yamashita, et al.*, Dept. of Joint Surg. and Sports Medicine,
Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.··S1772
- 1-6-23 Preventative effects of the partial RANKL peptide MHP1 on post-traumatic knee osteoarthritis
in mice*Yuji Fukuda, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1773
- 1-6-24 Attenuation of progression by intra-articular injection of CGRP receptor antagonist in
osteoarthritis model*Akinori Nekomoto, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1773
- 1-6-25 Changes of subchondral bone mineral density distribution after high tibial osteotomy
.....*Yoshiaki Hosokawa, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1774

- 1-6-26 Anatomical evaluation of the tibial attachment of the deep medial collateral ligament of the knee
 *Keishiro Kikuchi, et al.*, Dept. of Orthop. Surg. and Center for Joint Surg.,
 Kurume Univ. Medical Center...S1774
- 1-6-27 Medial meniscus extrusion after Medial open-wedge high tibial osteotomy: Evaluation using
 ultrasound and fresh frozen cadaveric knees
 *Kazushi Horita, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ...S1775
- 1-6-28 Increased sensor-based medial contact force during cruciate ligament-retaining TKA reflects
 reduced postoperative knee flexion angle
 *Shinichi Kuriyama, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S1775

14 : 40 ~ 15 : 40	Free papers	Osteoarthritis: Treatments 2	Moderators	I. Sekiya, M. Saito
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- 1-6-29 Artificial protein (Silk-elastin) can repair and regenerate degenerated meniscus in rabbit model
 *Shunya Tsuji, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1776
- 1-6-30 Computed tomography-based finite element analysis of hinge positions to prevent hinge fracture
 in medial closing wedge distal femoral osteotomy
 *Atsuki Tanaka, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S1776
- 1-6-31 I kappa B kinase (IKK) family is involved in meniscus damage, and IKK epsilon inhibitors
 suppress meniscus damage *Ryota Hirose, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ...S1777
- 1-6-32 Elevated levels of VEGF in PRP diminish the short-term efficacy of PRP therapy for
 knee osteoarthritis *Nanako Yamamoto, et al.*, Dept. of Orthop., Juntendo Univ...S1777
- 1-6-33 High tibial osteotomy improves the bone microstructure of the subchondral bone of the medial
 femoral condyle
 *Kohei Nishitani, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S1778
- 1-6-34 Comparison of restraining effect of trans-tibial pull-out repair with circumferential fiber
 augmentation (CFA) for medial meniscus posterior root tear (MMPRT) between two different
 tunnel locations *Toshitaka Tsunematsu, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medicine, Osaka Univ...S1778
- 1-6-35 Superior meniscus healing of pullout repair for partial medial meniscus posterior root tears
 compared to complete radial tears *Masanori Tamura, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S1779

15 : 50 ~ 16 : 50	Free papers	Osteoarthritis: Treatments 3	Moderators	H. Ikezawa, K. Ikoma
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- 1-6-36 Efficacy of total ankle arthroplasty with artificial talus (cTAA) for severe varus type OA
 *Hiroyuki Mitsui, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1779
- 1-6-37 Outcomes of total ankle arthroplasty with artificial talus: Comparison based on radiological
 staging (stage 3b and 4)
 *Hiroyuki Mitsui, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1780
- 1-6-38 Analysis of postoperative hindfoot alignment changes of standard TAA and combined TAA using
 weight-bearing long-leg AP view *Yuki Ueno, et al.*, Dept. of Orthop. Surg., Nara Medical Univ...S1780
- 1-6-39 Relationship between hindfoot alignment changes and postoperative pain in total knee
 arthroplasty for varus knee osteoarthritis
 *Yuta Matsumae, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ...S1781
- 1-6-40 Investigation of factors affecting postoperative outcomes in the total ankle arthroplasty
 and arthrodesis
 *Mitsuru Hanada, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S1781

- 1-6-41 Imaging analysis of lower leg muscle cross-sectional area and degree of deformity in patients with ankle osteoarthritis *Norihiro Tsujimoto, et al.*, Dept. of Orthop. Surg., Nara Medical Univ.··S1782
- 1-6-42 Analysis of the relationship between neuropeptide expression in subchondral bone and cartilage degeneration in ankle osteoarthritis *Saori Ishibashi, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1782

17 : 00 ~ 18 : 00 Free papers
Imaging analysis, computer 1

Moderators W. Miyamoto, T. Matsumoto

- 1-6-43 The usefulness of 3D bone morphology evaluation for flatfoot using statistical shape model *Takuma Miyamoto, et al.*, Dept. of Orthop. Surg., Nara Medical Univ.··S1783
- 1-6-44 Establishment of 3-D foot alignment evaluation using statistical shape model in flatfoot *Takuma Miyamoto, et al.*, Dept. of Orthop. Surg., Nara Medical Univ.··S1783
- 1-6-45 Methodology and validation of patient-specific flatfoot models using the finite element method *Yumiko Kobayashi, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine··S1784
- 1-6-46 Evaluation of Hounsfield unit values on the subchondral bone of the talus *Masashi Nakamura, et al.*, Dept. of Orthop. Surg., Hyogo Hyogo Medical Univ.··S1784
- 1-6-47 Association of Hounsfield Unit value on the CT images with cartilage degeneration in ankle osteoarthritis *Tomoyuki Nakasa, et al.*, Dept. of Artificial Joints and Biomaterials, Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1785
- 1-6-48 Evaluation of subtalar joint dynamics in ankle osteoarthritis using 4D-CT *Kanu Shimokawa, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.··S1785
- 1-6-49 The radiological study to investigate relationship between the talus and posterior tibial artery and to determine the safe zones during total ankle arthroplasty *Tatsuya Arimoto, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. Yokohama Seibu Hosp.··S1786

1st Day October 17 Room 7

8 : 00 ~ 9 : 00 Free papers
Tendon and ligament: Pathology 2

Moderators K. Nakagawa, E. Kondo

- 1-7-1 The mechanical study of meniscal scaffold wrapped with a fascia sheath *Takeru Iwata, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.··S1786
- 1-7-2 Biomechanical comparison of two different sutures for the tensile strength of the pullout repair of medial meniscus posterior root tear *Hibiki Kakiage, et al.*, Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine··S1787
- 1-7-3 Age-related changes in the ultrastructure of the quadriceps tendon *Yoshihiro Ishida, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.··S1787
- 1-7-4 Effects of posterior tibial slope on ramp lesion in acute anterior cruciate ligament injuries *Yuka Kimura, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine··S1788
- 1-7-5 Self-assembling peptide hydrogel with bone marrow aspirate concentrate facilitate zonal attachment of tendon grafts and bone tunnels in a mouse model of anterior cruciate ligament reconstruction *Keitaro Fujino, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.··S1788
- 1-7-6 Biomechanical evaluation of supra over-the-top (s-OTT) ACL reconstruction: single versus double tibial tunnels: A cadaveric study using a robotic simulator *Kousuke Shiwaku, et al.*, KKR Sapporo Medical Center··S1789

- 1-7-7 Metformin suppresses the fibrosis of knee joint capsule in a mouse model of diabetes mellitus
 *Toichiro Naito, et al.*, Dept. of Orthop. Surg., School of Medicine,
 Univ. of Occupational and Environmental Health...S1789

9 : 10 ~ 10 : 10 Free papers Imaging analysis, computer 2 Moderators T. Shishido, N. Shima

- 1-7-8 Measurement of the acetabular cup orientation after total hip arthroplasty based on 3D reconstruction from radiographs using generative adversarial networks
 *Akira Fujita, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S1790
- 1-7-9 Morphology of the gluteus medius muscle in patients with developmental dysplasia of the hip
 *Daisuke Suzuki, et al.*, Dept. Health Sci., Chitose Coll. Rehab...S1790
- 1-7-10 Three-dimensional preoperative planning in curved periacetabular osteotomy using finite element analysis and radar chart method
 *Takahiro Igei, et al.*, Orthop. Surg., Graduate School of Medicine, Univ. of the Ryukyus...S1791
- 1-7-11 The feature of distal femoral bone morphology with acetabular dysplasia
 *Hideki Shozen, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1791
- 1-7-12 A portable navigation system using AR technology in total hip arthroplasty reduces intraoperative X-ray radiation dose and irradiation time
 *Satomi Kimura, et al.*, Kawasaki Municipal Tama Hosp.
 Appointed Administrator Educational Foundation St. Marianna Univ. School of Medicine...S1792
- 1-7-13 Development of artificial intelligence contributing to the appropriate treatment for proximal femur fracture *Yutaro Sugawara, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1792
- 1-7-14 Novel visualization method of fracture site in diagnostic AI for hip fracture
 *Yuichi Imoto, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S1793

10 : 20 ~ 11 : 20 Free papers Joint diseases 1 Moderators H. Akiyama, N. Kaku

- 1-7-15 Pathogenesis of stage 2 ONFH with bone marrow edema
 *Yusuke Ayabe, et al.*, Dept. of Orthop. Surg., Clinical Medicine,
 Graduate School of Medical Sciences, Kyushu Univ...S1793
- 1-7-16 Distribution of nerve growth factor in osteonecrosis of the femoral head
 *Yusuke Ayabe, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ...S1794
- 1-7-17 Is the location of anterior necrotic boundary associated with collapse progression in Type B/C1 osteonecrosis? *Takeshi Utsunomiya, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ...S1794
- 1-7-18 Collapse simulation of pre-collapse osteonecrosis of the femoral head using 3D finite element analysis *Kosei Sakamoto, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ...S1795
- 1-7-19 Transient osteoporosis of the hip: A computed tomography bone contusion study
 *Yuki Usui, et al.*, Dept. of Orthop. Surg., Showa Univ...S1795
- 1-7-20 Analytical of intestinal microbiota in idiopathic osteonecrosis of the femoral head
 *Kosuke Arita, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1796
- 1-7-21 Analysis of microRNA expression in synovial fluid of osteonecrosis of femoral head
 *Hideki Shozen, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1796

11 : 30 ~ 12 : 30 Luncheon seminar 7

Moderator S. Tanaka

- 1-7-LS7-1 New findings in pharmacological effects of PTH1R agonists
.....*Tadahiro Imura*, Dept. of Pharmacology,
Hokkaido Univ., Faculty and Graduate School of Dental Medicine...S1797

13 : 30 ~ 14 : 30 Free papers Joint diseases 2

Moderators N. Samoto, H. Shima

- 1-7-22 Exploring the relationship between the hallux valgus angle and the first and second metatarsal angles
.....*Akiko Nagai, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine...S1797
- 1-7-23 Stress distribution on the first-second intercuneiform joint in patients with hallux valgus
.....*Dan Moriwaki, et al.*, Dept. of Orthop. Surg.,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1798
- 1-7-24 Treatment of hallux valgus also improves foot width: Relationship between hallux valgus angle and foot width
.....*Tomoko Karube, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1798
- 1-7-25 Non-invasive automatic measurement of hallux valgus angle
.....*Ryuto Takise, et al.*, Medical Engineering Course, Graduate School of Medicine, Chiba Univ...S1799
- 1-7-26 Foot alignment evaluation for Freiberg's disease
.....*Ryo Fukagawa, et al.*, Dept. of Orthop. Surg., Fukuoka Univ...S1799
- 1-7-27 The lateral drawer test: A new clinical test to assess mortise instability in Weber B Fibula fractures
.....*Yuzuru Sakakibara, et al.*, Dept. of Orthop. Surg., Muroran City General Hosp...S1800
- 1-7-28 Differences in the diameter of the distal fibular intramedullary canal between Japanese and Americans
.....*Ion Kimura, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S1800

14 : 40 ~ 15 : 40 Free papers Bone: Fracture

Moderators Y. Watanabe, T. Yoshii

- 1-7-29 Diaphyseal bone fracture healing is delayed in Hybid (hyaluronan-binding protein involved in hyaluronan depolymerization)-deficient mice
.....*Suguru Wakana, et al.*, Dept. of Orthop., Juntendo Univ...S1801
- 1-7-30 The histological examinations of ilium and the fracture site in patients with bisphosphonate-associated atypical femoral fractures
.....*Naoki Kondo, et al.*, Div. of Orthop. Surg., Dept. of Regenerative and Transplant Medicine,
Niigata Univ. Graduate School of Medical and Dental Sciences...S1801
- 1-7-31 Deterioration of fracture healing due to aging can be improved by 'rejuvenation angiocrine factor'
.....*Takahito Iga, et al.*, Dept. of Orthop. Surg., Keio Univ...S1802
- 1-7-32 Effect of Methylglyoxal on fracture healing
.....*Tetsuya Seto, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine...S1802
- 1-7-33 Low Young's modulus TiNbSn alloy locking plate promotes bone healing in rat femurs
.....*Tomoki Koyama, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S1803
- 1-7-34 Evaluation of fixation of anterior fixation for fragility fractures of the pelvis (FFP classification IIc) using 3D finite element analysis
.....*Masahiro Kawagishi, et al.*, Dept. of Orthop. Surg., Oita Univ...S1803
- 1-7-35 Functional analysis of KLF15-conditional knock out mice in a fracture model
.....*Shotaro Tachibana, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S1804

15 : 50 ~ 16 : 50 **Free papers**
Bone: Regeneration, treatments 1

Moderators **K. Mishima, M. Ohashi**

- 1-7-36 Anti-sclerostin antibody therapy prevents post-ischemic osteonecrosis bone collapse via interleukin-6 association
 *Yuto Ozawa, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.··S1804
- 1-7-37 Development of a novel long-bone nonunion model in rats and efficacy evaluation of prostaglandin EP4 selective agonist (AKDS001) with iliac bone grafting
 *Daisuke Tateiwa, et al.*, Osaka Police Hosp.··S1805
- 1-7-38 Novel mechanism of angiogenesis and osteogenesis promoted by bone marrow mononuclear cells for bone healing via gap junction-mediated cell-cell interaction
 *Yoshihito Suda, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1805
- 1-7-39 The effect of iPS cell-derived megakaryocyte/platelet formulation on bone formation in a rabbit lumbar posterolateral fusion model and its long-term safety
 *Takahito Arai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S1806
- 1-7-40 Effects of rhBMP-2 loaded hydroxyapatite granules/beta-tricalcium phosphate hydrogel (HA/Beta-TCP/hydrogel) on a rat model of nonunion
 *Takayuki Kitahara, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1806
- 1-7-41 A Novel treatment strategy for non-union targeting bone senescence
 *Takayuki Kitahara, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1807
- 1-7-42 Delayed trabecular bone recovery by reloading after tail suspension in mice with elastase-induced emphysema
 *Daisuke Arakawa, et al.*, Dept. of Orthop. Surg., School of Medicine, Univ. of Occupational and Environmental Health··S1807

17 : 00 ~ 18 : 00 **Free papers**
Bone: Regeneration, treatments 2

Moderators **M. Watanabe, N. Ogata**

- 1-7-43 Study on the synergistic effects of extracorporeal shock wave therapy in combination with iPS cell-derived artificial platelet products on mesenchymal stem cell proliferation
 *Michiaki Mukai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S1808
- 1-7-44 3 dimensions bone regeneration derived human induced pluripotent stem cell using β -TCP
 *Akihito Kawai, et al.*, Dept. of Orthop. Surg., Nara Medical Univ.··S1808
- 1-7-45 Methylcobalamin promotes bone formation via peripheral nerve regeneration and macrophage polarization
 *Toshiki Shimada, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1809
- 1-7-46 Kielin/chordin-like protein promotes effect of bone morphogenic protein-2 to induce osteoblast differentiation *Kei Nagasaki, et al.*, Dept. of Orthop. Surg., Showa Univ.··S1809
- 1-7-47 The preventive effect of transcutaneous CO2 application on disuse bone and muscle atrophy of a rat induced by hindlimb suspension
 *Ryota Nishida, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1810
- 1-7-48 The effect of BMP-2 concentration on osteogenic differentiation induction of rat adipose-derived stem cells *Hiromu Yoshizato, et al.*, Dept. of Orthop. Surg., Saga Univ.··S1810
- 1-7-49 Visualization of heterogeneity in human bone marrow-derived mesenchymal stem cell fractions using a 10+ color multicolor flow cytometry method
 *Shuya Tanaka, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1811

1st Day October 17 Room 8

8 : 00 ~ 9 : 00	Free papers Peripheral nerve 1	Moderators R. Kakinoki, T. Iwamoto
1-8-1	Effects of hydrogen addition on peripheral nerve regeneration under the transcription factor REST over expression condition <i>Takamaru Suzuki, et al.</i> , Dept. of Orthop., Juntendo Univ. ...S1811	
1-8-2	Effects of mirogabalin besylate addition on peripheral nerve regeneration under the transcription factor REST over expression cell lines <i>Kenjiro Kawamura, et al.</i> , Dept. of Medicine for Orthop. and Motor Organ, Juntendo Univ. ...S1812	
1-8-3	Examination of the hypertrophic muscle overlying transverse carpal ligament <i>Kotaro Sato, et al.</i> , Dept. of Orthop. Surg., Iwate Medical Univ. ...S1812	
1-8-4	Efficacy of MRI signal intensity ratio of the intrinsic muscles of the hand for the diagnosis of carpal tunnel syndrome <i>Kazuya Uehara, et al.</i> , Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine ...S1813	
1-8-5	Pathological classification of idiopathic carpal tunnel syndrome focusing on transthyretin amyloid deposition in the synovium in the carpal tunnel <i>Yoshiaki Yamanaka, et al.</i> , Dept. of Orthop. Surg., School of Medicine, Univ. of Occupational and Environmental Health ...S1813	
1-8-6	Imeglimin improves mitochondrial function of subsynovial connective tissue within the carpal tunnel in carpal tunnel syndrome patients <i>Yutaka Ehara, et al.</i> , Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S1814	
1-8-7	Transcriptional factor REST regulates axonal regeneration by JAK1/STAT3 pathway via GP130 <i>So Kawakita, et al.</i> , Dept. of Medicine for Orthop. and Motor Organ, Juntendo Univ. ...S1814	
9 : 10 ~ 10 : 10	Free papers Peripheral nerve 2	Moderators A. Sakai, N. Terada
1-8-8	Analysis of differences in peripheral nerve repair after chronic constriction using rat menopause model <i>Sayaka Ishii, et al.</i> , Cen of Hand. Surg., Juntendo Univ. Urayasu Hosp. ...S1815	
1-8-9	Investigation of the angiogenic effects of methylcobalamin in a rat peripheral nerve injury model <i>Yoshiaki Yoshimura, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S1815	
1-8-10	Utility of supercharge end-to-side (SETS) nerve transfer in different severity of neuropathy models in rat <i>Masaru Munemori, et al.</i> , Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S1816	
1-8-11	A feasibility of using nerve conduit as a nerve connector for repairing sciatic nerve with transgenic mouse <i>Satoshi Otani, et al.</i> , Hand Surg Cent., Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp. ...S1816	
1-8-12	Properties of Nav1.8 Chr2-positive afferent mechanoreceptors in the hindpaw glabrous skin of mice: Analysis by pressure-clamped single-fiber recording <i>Mayumi Fukasawa, et al.</i> , Dept. of Orthop. Surg., Wakayama Medical Univ. ...S1817	
1-8-13	Peripheral nerve reconstruction using a novel axon regeneration factor GFRA1 <i>Yusuke Muranaka, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S1817	
1-8-14	NETs expressed at the epineurium of Wallerian degeneration is a novel therapeutic target of peripheral nerve injury <i>Hiroki Takeuchi, et al.</i> , Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S1818	

10 : 20 ~ 11 : 20 Free papers

Moderators S. Omokawa, M. Yamamoto

Anatomy, biomechanics 1

- 1-8-15 An anatomical study of the scaphotrapezoidal ligament for the ligament preservation procedure in Arthroscopic distal scaphoid resection
..... *Yukiko Yoshimura, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ. ...S1818
- 1-8-16 Definition of LCR and examination of its anatomical characteristic sites
..... *Kenichi Takashima, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S1819
- 1-8-17 Biomechanical function of the lateral cubital retinaculum
..... *Kenichi Takashima, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S1819
- 1-8-18 The roles of the EIP and EDC2 are different during the extension of the index MP joint
..... *Nanako Nakamae, et al.*, Dept. of Analysis and Control of Upper Extremity Function, Graduate School of Biomedical and Health Science, Hiroshima Univ. ...S1820
- 1-8-19 Role of the interosseous membrane of the forearm in radioulnar load-sharing: A study in cadaver
..... *Takashi Nomoto, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S1820
- 1-8-20 (Withdrawn)
- 1-8-21 Computer tomography assessment of thoracic outlet syndrome
..... *Hiroshi Satake, et al.*, Dept. of Orthop. Surg., Yamagata Univ. ...S1821

11 : 30 ~ 12 : 30 Luncheon seminar 8

Moderator M. Nakamura

- 1-8-LS8-1 Recent trends in treatment of discogenic low back pain
..... *Daisuke Sakai*, Dept. of Orthop. Surg., Tokai Univ. School of Medicine ...S1822

13 : 30 ~ 14 : 30 Free papers Imaging analysis, computer 3

Moderators H. Tohyama, K. Goto

- 1-8-22 Realistic high-resolution normal knee X-ray image synthesis using conditional GAN with transformation conditioning and possibility of automated diagnosis for bone tumors
..... *Nguyen Hoan, et al.*, Japan Cash Machine Co., Ltd. ...S1822
- 1-8-23 Distribution of CPAK classification and effect of femoral shaft bowing in the Japanese varus knees: consideration of 1010 knees
..... *Kensaku Abe, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences ...S1823
- 1-8-24 Comparison of meniscal stress before and after high tibial osteotomy: Analysis using finite element method using MRI images
..... *Yukiko Sakamoto, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine ...S1823
- 1-8-25 Change of patella height after high tibia osteotomy evaluated by using three-dimensional computed tomography: Medial open wedge versus inverted-V shaped osteotomy
..... *Shinya Dobashi, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S1824
- 1-8-26 Comparison of accuracy of tibial rotation alignment in total knee arthroplasty using a handheld robotic system
..... *Shine Tone, et al.*, Dept. of Orthop. Surg., Mie Univ. School of Medicine ...S1824
- 1-8-27 Assessment of trochlear dysplasia using three-dimensional CT models in patients with patellar dislocation
..... *Rika Shigemoto, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S1825
- 1-8-28 Prediction of whole-body skeletal muscle loss based on CT images of the lower extremities
..... *Sotaro Kono, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S1825

14 : 40 ~ 15 : 40 Free papers

Moderators K. Nakanishi, B. Otsuki

Imaging analysis, computer 4

- 1-8-29 Three-dimensional analysis of safe area based on transforaminal approach surgery in degenerative spondylolisthesis of the lumbar spine: Using 3D-MRI/CT fusion images generated by AI technology *Katsuhisa Yamada, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1826
- 1-8-30 Generation of AI myelographic CT from plain CT by adversarial generative network *Terufumi Kokabu, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1826
- 1-8-31 Utility of standing CTM for lumbar degenerative disease *Soya Kawabata, et al.*, Dept. of Orthop. Surg., Fujita Health Univ.··S1827
- 1-8-32 Deep learning-based detection of lumbar spinal canal stenosis using convolutional neural networks *Hisataka Suzuki, et al.*, Eniwa Hosp.··S1827
- 1-8-33 Prediction of cervical spondylotic myelopathy from plain radiograph using deep learning with convolutional neural networks *Hiroyuki Tachi, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1828
- 1-8-34 Prediction of vertebral rotation angle in adolescent idiopathic scoliosis using deep learning with convolutional neural network *Hiroyuki Tachi, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1828
- 1-8-35 Radiation exposure due to CT navigated technique in adolescent idiopathic scoliosis *Kazuta Yamashita, et al.*, Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School··S1829

15 : 50 ~ 16 : 50

Free papers

Imaging analysis, computer 5

Moderators T. Nakamura, K. Sato

- 1-8-36 Utility of binarized T2-weighted imaging using Otsu's method in the quantitative evaluation of rotator cuff muscle fat fraction *Ryota Kojima, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine··S1829
- 1-8-37 Estimation of shoulder joint rotation angle using a tablet device and a posture estimation artificial intelligence model *Shunsaku Takigami, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1830
- 1-8-38 Thumb rotation angle estimation using a tablet device with a posture estimation artificial intelligence model *Yutaka Ehara, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1830
- 1-8-39 Diagnosis of carpal tunnel syndrome in ultrasonography using machine learning: A novel approach for severity assessment *Tomohiko Waki*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.··S1831
- 1-8-40 Comparison of diagnostic accuracy of AI models for carpal tunnel syndrome: A study of the amount of information required to diagnose severity from ultrasonography *Tomohiko Waki, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.··S1831
- 1-8-41 Assessment of implant placement accuracy in total wrist arthroplasty using augmented reality *Shimpei Watanabe, et al.*, Dept. of Orthop. Surg., Keio Univ.··S1832
- 1-8-42 Evaluation of tendon cross-sectional area of the hands by FRACTURE MRI *Kayo Inaguma, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.··S1832

17 : 00 ~ 18 : 00

Free papers

Muscle

Moderators E. Tsuda, S. Okada

- 1-8-43 Sclerostin is the target for sarcopenia treatment *Tetsuo Kobayashi, et al.*, Dept. of Orthop. Surg., Shizuoka Medical Center··S1833

- 1-8-44 Effects of mitochonic acid-5 (MA-5) on skeletal muscle damage
*Naoto Shibasaki, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S1833
- 1-8-45 Clinical usefulness of a newly-developed ultrasound device to estimate muscle mass in older adults: Cross-sectional analysis from FESTA study
*Masaaki Onishi, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ...S1834
- 1-8-46 Association between aging-related sarcopenia, oxidative stress, and mitochondrial calcium-regulated proteins in atrophied muscle of mice
*Tomoyasu Kadoguchi, et al.*, Dept. of Life Sciences,
 Graduate School of Arts and Sciences, The Univ. of Tokyo...S1834
- 1-8-47 Recapitulation of sarcopenia pathophysiology induced by chronic circadian misalignment in mouse*Takashi Seya, et al.*, Dept. of Orthop.,
 Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S1835
- 1-8-48 Antioxidants promote muscle regeneration after hamstring strain
*Fumitoshi Hatae, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp...S1835
- 1-8-49 Relationship between bone mineral density, phase angle, muscle mass and muscle strength in women over 60 years old*Ikuko Takahashi, et al.*, Ishii Orthop. & Rehabilitation Clinic...S1836

1st Day October 17 Poster 1

15 : 30 ~ 16 : 00 Best poster award session Moderators E. Chosa, Y. Ishibashi

- 1-BP-1 International meta-analysis of genome-wide association study on adolescent idiopathic scoliosis
*Takuro Iwami, et al.*, Dept. of Orthop. Surg., Keio Univ...S1836
- 1-BP-2 A novel therapeutic approach targeting microenvironment of osteosarcoma by producing nanomedicine for CSF-1/CSF-1R inhibitor*Tomohiro Fujiwara, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S1837
- 1-BP-3 The role of nerves inside bone in the mechanism of bone homeostasis regulated by mechanical stress and gravity*Shohei Tsujino, et al.*, Dept. of Orthop. and Spinal Surg.,
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ...S1837
- 1-BP-4 (Withdrawn)
- 1-BP-5 Feasibility of cationized gelatin nanospheres in RNA interference effect for rat intervertebral disc nucleus pulposus cells
*Yoshiaki Hiranaka, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S1838
- 1-BP-6 Implantation of an acellular, bioresorbable, ultra-purified in-situ forming gel after discectomy for lumbar intervertebral disc herniation*Katsuhisa Yamada, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1839

16 : 00 ~ 16 : 30 Poster Cartilage 1 Moderators K. Nakata, Y. Kimura

- 1-Po-1 Intra-articular injection of temsirolimus delays osteoarthritis progression in osteoarthritis-induced and senescence accelerated mice
*Yuhei Otsuki, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S1839
- 1-Po-2 Involvement of O-linked glycosylation in suppressing arthritis
*Yusuke Ono, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg.,
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ...S1840
- 1-Po-3 Histological changes within 4 weeks after transplantation of juvenile cartilage-derived chondrocyte sheets in a nude rat chondral defect transplantation model
*Keisuke Matsukura, et al.*, Dept. of Orthop. Surg., Asahikawa Medical Univ...S1840

- 1-Po-4 Effects of intermittent hypoxic stimulation on cultured chondrocytes and rat osteoarthritis models *Ryota Cha, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S1841
- 1-Po-5 Hypoxic condition promoted cartilage repair in full thickness cartilage defect (FTCD) rat model *Kei Nakamura, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine...S1841
- 1-Po-6 Bone marrow-derived platelet-rich fibrin promotes repair of osteochondral defects in rabbits *Takahiro Igarashi, et al.*, Dept. of Orthop. Surg., Yamagata Univ...S1842

16 : 30 ~ 17 : 00	Poster	Cartilage 2	Moderators	T. Tajima, T. Matsumoto
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- 1-Po-7 Abnormal endochondral ossification associated with X-linked hypophosphatemic rickets *Takuya Ogawa, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1842
- 1-Po-8 Feasibility of osteophyte cartilage as a cell source for cartilage regeneration *Shingo Kawabata, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1843
- 1-Po-9 Self-assembled articular cartilage-hydroxyapatite conjugate with growth factors for combined articular cartilage and subchondral bone repair *Takanori Kumai, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1843
- 1-Po-10 Changes in glycan antigen in the context of passage cultures and the development of immune responses in autologous cells *Kentaro Homan, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1844
- 1-Po-11 Effect of macrophages on the number and function of synovial stem cells in inflammatory synovium *Hayato Kodama, et al.*, Center for Stem Cell and Regenerative Medicine, Tokyo Medical and Dental Univ...S1844

1st Day	October 17	Poster 2
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16 : 00 ~ 16 : 30	Poster	Bone: Osteoporosis	Moderators	Y. Sasao, M. Takami
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- 1-Po-12 Effect of belt electrode-skeletal muscle electrical stimulation (B-SES) for bone and subchondral bone microstructure and bone strength in young male rats *Yuta Tsubouchi, et al.*, Div. of Human Biol., Oita Univ. of NHS...S1845
- 1-Po-13 Effect of prolonged hospitalization on osteoporosis in muscular dystrophy *Ryo Katsuki, et al.*, Orthop. Surg., Graduate School of Medicine, Univ. of the Ryukyus...S1845
- 1-Po-14 Preventive effects of wood ear mushrooms on osteoporosis *Masashi Kataoka, et al.*, Faculty of Welfare and Health Science, Oita Univ...S1846
- 1-Po-15 Predictive performance for adjacent vertebral fractures after BKP: Comparison of CT based Hounsfield units and MRI-based vertebral bone quality *Koji Matsumoto, et al.*, Dept. of Orthop. Surg., Nihon Univ...S1846
- 1-Po-16 Association of skeletal muscle fatty degeneration with age and bone mineral density in elderly women *Yuji Kasukawa, et al.*, Dept. of Rehabilitation Medicine, Akita Univ. Hosp...S1847
- 1-Po-17 Mechanism of high bone turnover induced by soft tissue injury: A mouse model of myofascial injury *Kenta Kiyomoto, et al.*, Dept. of Musculoskeletal Anti-aging Medicine, Sapporo Medical Univ...S1847

16 : 30 ~ 17 : 00	Poster Bone: Others	Moderators H. Terai, S. Kaneko
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- 1-Po-18 Sacral spine development and its implications in adolescents for proper diagnosis of low back pain *Kyohei Ishizuka, et al.*, Dept. of Orthop. Surg., Div. of Disease Control, Research field of Medical Sciences, Graduate School of Medicine, Gifu Univ. ...S1848
- 1-Po-19 Progenitor cells derived from iliac crest autograft survive, induce endochondral ossification, and contribute to lumbar fusion *Takuya Oyaizu, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S1848
- 1-Po-20 p21 deficient mice are susceptible to osteoporosis in arthritis model *Kensuke Wada, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S1849
- 1-Po-21 Effects of lysophosphatidylethanolamine on proliferation and differentiation of MC3T3-E1 cells *Fumiaki Makiyama, et al.*, Dept. of Orthop. Surg., Shinshu Univ. ...S1849
- 1-Po-22 Toll-like receptor 4 antagonist suppresses inflammatory responses in osteonecrosis of the femur *Takamune Asamoto, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S1850
- 1-Po-23 Optimal dosing interval of abaloparatide in combination with low-dose BMPs: A study using rat posterolateral spinal fusion model *Tetsutaro Abe, et al.*, Dept. of Orthop. Surg., Oita Univ. ...S1850

1st Day October 17 Poster 3

16 : 00 ~ 16 : 30	Poster Osteoarthritis 1	Moderators K. Kumagai, H. Kaneko
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- 1-Po-24 Relationship between MRI findings, serum bone markers and progression of varus deformity in early knee osteoarthritis from five years longitudinal cohort study *Kyota Ishibashi, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine ...S1851
- 1-Po-25 Medial meniscus tear in knee osteoarthritis is associated with medial meniscus posterior horn width negatively and anterior horn thickness positively *Takuya Yamamura, et al.*, Dept. of Orthop., Juntendo Univ. ...S1851
- 1-Po-26 The role of FNIII14 in cellular senescence of chondrocyte *Yohei Yamabe, et al.*, Dept. of Musculoskeletal Surg., Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine ...S1852
- 1-Po-27 Expression of Netrin-4 in synovial tissue and its involvement in pain *Ayumi Tsukada, et al.*, Dept. of Orthop. Surg., Kitasato Univ. ...S1852
- 1-Po-28 Expression of Netrin-4 in the infrapatellar fat pad and its involvement in osteoarthritis pathology *Yui Uekusa, et al.*, Dept. of Orthop. Surg., Kitasato Univ. ...S1853
- 1-Po-29 Involvement of apelin in knee osteoarthritic pain *Keisuke Atsumi, et al.*, Dept. of Orthop. Surg., Field of Surg., Nippon Medical School, Graduate School of Medicine ...S1853

16 : 30 ~ 17 : 00	Poster Osteoarthritis 2	Moderators D. Osada, H. Fujii
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- 1-Po-30 Inhibition of osteoarthritis progression using cartilage-specific ADAM10 conditional knock out mice *Hiroto Yamamoto, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ. ...S1854
- 1-Po-31 The effectiveness and safety of DF-HA in a rat hip MIA model (Second report) *Hiroakira Terakawa, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S1854

- 1-Po-32 Evaluation of hip anterior instability due to weight bearing and hip external rotation using false profile view *Fumiya Kizawa, et al.*, Dept. of Reha., Hokkaido Univ. Hosp.···S1855
- 1-Po-33 Effect of load distribution on the knee joint after periacetabular osteotomy *Yuki Ogawa, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1855
- 1-Po-34 (Withdrawn)
- 1-Po-35 The more sever thumb carpometacarpal joint osteoarthritis, the lower the thumb pronation angle *Kazuya Tsukamoto, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.···S1856

1st Day October 17 Poster 4

16 : 00 ~ 16 : 30	Poster Artificial joints 1	Moderators K. Hayakawa, M. Nagashima
1-Po-36	Bone compressive strength in patients with new joint prostheses “Compress” for bone malignancies: A prospective study <i>Hiroshi Koike, et al.</i> , Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ.···S1857	
1-Po-37	Relationship between kinematics and patient-reported outcomes in uni-compartmental knee arthroplasty <i>Yuki Murakami, et al.</i> , Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine···S1857	
1-Po-38	An anteroposterior axis of the tibia for kinematic aligned total knee arthroplasty <i>Seikai Toyooka, et al.</i> , Dept. of Orthop. Surg., Teikyo Univ.···S1858	
1-Po-39	Intraoperative evaluation of the tibial rotation using the navigation system and two types of robots differs in BCS-TKA during deep knee flexion <i>Keizo Wada, et al.</i> , Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School···S1858	
1-Po-40	Validation of intraoperative ligament balance assessment in robot-assisted total knee arthroplasty <i>Keiichiro Someya, et al.</i> , Div. of Orthop. Surg., Dept. of Regenerative and Transplant Medicine, Niigata Univ. Graduate School of Medical and Dental Sciences···S1859	
1-Po-41	TKA surgical technique (step-cutting method) to reduce cutting error in the distal sagittal section of the femur <i>Takashi Kotani, et al.</i> , Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine···S1859	

16 : 30 ~ 17 : 00	Poster Artificial joints 2	Moderators S. Kawano, I. Kosukegawa
1-Po-42	Evaluation fixation force of an artificial hip acetabular cup placed in simulated bone using a quantitative press-fit technique <i>Asahi Sujino, et al.</i> , Dept. of Orthop. Surg., Keio Univ.···S1860	
1-Po-43	Comparison of stress on femur by cement stem alignment in cemented total hip arthroplasty finite element analysis <i>Fumito Kobayashi, et al.</i> , Dept. of Orthop. Surg., Kansai Medical Univ.···S1860	
1-Po-44	Assessment of bone mineral density around the acetabular cup <i>in vivo</i> using laser resonance frequency analysis <i>Takuto Hatakeyama, et al.</i> , Dept. of Orthop. Surg., Keio Univ.···S1861	
1-Po-45	Evaluation of sitting pelvic alignment for total hip arthroplasty <i>Yota Katsuyama, et al.</i> , Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine···S1861	
1-Po-46	Evaluation of the usefulness of Mako system during stem placement of total hip arthroplasty: Accuracy of the enhance mode <i>Yasuaki Tamaki, et al.</i> , Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School···S1862	
1-Po-47	Assessment of early biological fixation compared between full HA coated stem and cementless tapered-wedge stem using digital tomosynthesis <i>Kazuki Oishi, et al.</i> , Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine···S1862	

1st Day October 17 Poster 5

16 : 00 ~ 16 : 30 Poster

Moderators K. Kawasaki, Y. Kaji

Motion analysis: Rehabilitation, others 1

- 1-Po-48 Preoperative factors associated with changes in upper limb activity in patients after arthroscopic rotator cuff repair up to 6 months postoperatively
 *Toshiyuki Fukushima, et al.*, Central Dept. of Rehabilitation, Chugoku Rosai Hosp. ...S1863
- 1-Po-49 Improved hand function following reconstructive surgery for right upper extremity nerve injury: A single case report of somato-cognitive coordination therapy using virtual reality technology
 *Keito Shinmoto, et al.*, mediVR Rehabilitation Center Tokyo ...S1863
- 1-Po-50 Effects of elbow and forearm joint range of motion limitations on steering wheel maneuvers necessary for hazard avoidance
 *Shintaro Kishimoto, et al.*, Dept. of Rehabilitation, Kawashima Clinic ...S1864
- 1-Po-51 Muscle synergy analysis during arm elevation in the normal shoulder
 *Yohei Harada, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S1864
- 1-Po-52 Effect for stability after modified L'Episcopo procedure in reverse shoulder arthroplasty by biomechanical study using fresh frozen shoulder
 *Yohei Shimada, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. Hosp. ...S1865

16 : 30 ~ 17 : 00 Poster

Moderators Y. Nishimura, M. Hangai

Motion analysis: Rehabilitation, others 2

- 1-Po-53 Investigation of the impact of rater experience on the reliability of sweat lactate threshold determination for AT evaluation *Hiroki Okawara, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S1865
- 1-Po-54 Reliability of anaerobic threshold using sweat lactate sensor
 *Tomonori Sawada, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S1866
- 1-Po-55 Estimation of maximal lactate steady state using the sweat lactate sensor
 *Yuki Muramoto, et al.*, Institute for Integrated Sports Medicine, Keio Univ. ...S1866
- 1-Po-56 Evaluating physical activity through eyeglass-type wearable devices: A comparative analysis with the IPAQ
 *Masahiro Inoue, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S1867
- 1-Po-57 Verification of accuracy of pain intensity classification during walking by AI analysis using EEG
 *Hirotsu Imai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ. ...S1867
- 1-Po-58 CT-based finite element analysis of optimal mechanical axis for open wedge high tibial osteotomy
 *Nozomi Aoki, et al.*, Dept. of Orthop. Surg., Ota Hosp. ...S1868

1st Day October 17 Poster 6

16 : 00 ~ 16 : 30 Poster Regenerative medicine

Moderators A. Hikita, S. Nagano

- 1-Po-59 To elucidate the function of PCGF6 in maintaining the stemness of mesenchymal stem cells
 *Kensuke Toriumi, et al.*, Dept. of Orthop. Surg., Kindai Univ. Faculty of Medicine ...S1868
- 1-Po-60 Effect of intra-articular injection of dedifferentiated fat cells on the monoiodoacetic acid induced knee osteoarthritis model in rats *Akihito Takata, et al.*, Dept. of Orthop. Surg., Nihon Univ. ...S1869
- 1-Po-61 Regeneration of the patellar tendon using scaffold-free 3D constructs consisted of adipose tissue-derived mesenchymal stem cells in rabbits
 *Shohei Kashimoto, et al.*, Center for Regenerative Medicine Research, Saga Univ. ...S1869

- 1-Po-62 Outcome of autologous nerve graft with transvenous systemic administration of adipose-derived stem cells *Soichiro Honda, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.··S1870
- 1-Po-63 Intravenous infusion of mesenchymal stem cells into a hemisection model of spinal cord injury *Hisashi Obara, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ.··S1870

16 : 30 ~ 17 : 05	Poster Peripheral nerve	Moderators Y. Nakashima, T. Suzuki
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- 1-Po-64 MHC class I deficiency reduces M2 macrophage polarization following chronic constriction injury of sciatic nerve *Eiki Shirasawa, et al.*, Dept. of Orthop. Surg., Kitasato Univ.··S1871
- 1-Po-65 Nerve conduction measurements for spontaneous anterior interosseous nerve lesions *Shingo Nobuta, et al.*, Dept. of Orthop. Surg., Tohoku Rosai Hosp.··S1871
- 1-Po-66 Anatomical study of anterior transposition of the ulnar nerve in cubital tunnel syndrome *Kohei Hirukawa, et al.*, Dept. of Orthop. Surg., Kitasato Univ.··S1872
- 1-Po-67 The association between amyloid deposition and nerve conduction study in surgically treated patients of idiopathic carpal tunnel syndrome *Nobuaki Tadokoro, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ.··S1872
- 1-Po-68 Effect of nintedanib on fibroblasts derived from transverse carpal ligament *Yusuke Hattori, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences··S1873
- 1-Po-69 High-dose methylcobalamin exerts anti-inflammatory effects by activating M-Ras and promotes regeneration after peripheral nerve injury in a rat model *Toru Iwahashi, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1873
- 1-Po-70 Unique physical properties and favorable peripheral nerve regenerative effects of silk fibroin conduits produced by a novel freeze-thawing method *Tomoki Matsuo, et al.*, Dept. of Orthop. Surg., Keio Univ.··S1874

1st Day October 17 Poster 7

16 : 00 ~ 16 : 30	Poster Biomaterials	Moderators Y. Shinto, N. Saito
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- 1-Po-71 Analysis on macrophage subtype alteration in the synovium of rheumatoid arthritis *Hanqing Huang, et al.*, Dept. of Orthop. Surg., Yamagata Univ.··S1874
- 1-Po-72 The effect of belt electrode-skeletal muscle electrical stimulation (B-SES) on the suppression of muscle atrophy in arthritis model rats *Kazufumi Hisamoto, et al.*, Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine··S1875
- 1-Po-73 Relations between LipoxinA4 in synovial fluid and blood test in rheumatoid arthritis *Yutaka Sano, et al.*, Dept. of Orthop. Surg., Nihon Univ.··S1875
- 1-Po-74 Improvement of osseointegration by amin modification on PEEK cage by plasma technology *Takuya Furuichi, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1876
- 1-Po-75 Evaluation of bone augmentation ability of magnesium alloy interconnecting hole blocks by short-term intraosseous implantation *Hiroshi Noguchi, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba··S1876
- 1-Po-76 Osteolytic activities of polyethylene liner wear debris after exposure to different dosages of radiation *Junki Shiota, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1877

16 : 30 ~ 17 : 00	Poster Biomechanics	Moderators M. Hasegawa, Y. Minoda
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- 1-Po-77 Initial stability of cementless cups using robot-assisted total hip arthroplasty is superior to manual technique: An *in vitro* biomechanical study
 *Ryo Hidaka, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S1878
- 1-Po-78 Comparison of stress distribution around short and tapered wedge stems in femurs with different femoral marrow cavity geometries based on finite element analysis results
 *Tsuguaki Hosoyama, et al.*, Dept. of Endoprosthetic Surg., Oita Univ. ...S1878
- 1-Po-79 Differences in femoral stress distribution with different cement mantle thicknesses in the same type of cemented stem: A thermoelastic stress analysis study
 *Shota Yasunaga, et al.*, Univ. of Tsukuba Hosp. ...S1879
- 1-Po-80 Accuracy of image matching technique for evaluating lower-extremity alignment using anteroposterior radiography
 *Koichi Kobayashi, et al.*, Sch. Health Sci., Faculty of Med., Niigata Univ. ...S1879
- 1-Po-81 Age-related changes in strength of rat meniscus root by tensile tests
 *Ryota Seki, et al.*, Dept. of Joint Surg. and Sports Medicine, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S1880

1st Day October 17 Poster 8

16 : 00 ~ 16 : 30	Poster Motion analysis: Spine	Moderators S. Kawabata, Y. Yamato
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- 1-Po-82 Evaluation of swallowing function before and after cervical spinal deformity surgery for dropped head syndrome and the risk of developing postoperative dysphagia
 *Chikara Hayakawa, et al.*, Dept. of Orthop. Surg., Showa Univ. ...S1880
- 1-Po-83 Relationship the double knee action and trunk tilt during walking in kyphosis
 *Keisuke Ishikawa, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine ...S1881
- 1-Po-84 Does trailing limb angle have clinical significance in gait analysis of patients with spinal kyphosis?
 *Junya Kusakabe, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine ...S1881
- 1-Po-85 Changes in lower extremity kinematics during medium-distance walking after extensive corrective fusion surgery for adult spinal deformity: A study using three-dimensional gait analysis
 *Hideyuki Arima, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S1882
- 1-Po-86 Relationship between pulmonary function test and skeletal muscle in adolescent idiopathic scoliosis
 *Kanichiro Wada, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine ...S1882

16 : 30 ~ 17 : 05	Poster Intervertebral disc	Moderators A. Minamide, S. Orita
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- 1-Po-87 Transient receptor potential vanilloid 4 activation promotes autophagy and extracellular matrix synthesis in rat intervertebral disc
 *Kohei Kuroshima, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine ...S1883
- 1-Po-88 Investigation on the pathogenesis of spinal deformity using a mouse model of musculocontractural Ehlers-Danlos syndrome
 *Masashi Uehara, et al.*, Dept. of Orthop. Surg., Shinshu Univ. ...S1883
- 1-Po-89 Influence of posterior decompression for lumbar spinal canal stenosis on intervertebral disc degeneration on magnetic resonance imaging *Naosuke Kamei, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S1884
- 1-Po-90 (Withdrawn)

- 1-Po-91 Deficiency of MiR-23a/b clusters accelerates severe intervertebral disc degeneration through impaired homeostasis of nucleus pulposus cells
 *Fadlyansyah Farid, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1885
- 1-Po-92 Intervertebral disc degeneration due to pressure on the caudal vertebrae in rats
 *Kazuto Nakao, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1885
- 1-Po-93 Creation and repair of rat caudal intervertebral disc model using artificial protein (silk elastin)
 *Hiroki Fukui, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1886

1st Day October 17 Poster 9

16 : 00 ~ 16 : 30	Poster Tumors 1	Moderators K. Honoki, T. Torigoe
1-Po-94	Association of brain-derived neurotrophic factor in pulmonary metastasis of osteosarcoma <i>Yoshinori Takemura, et al.</i> , Dept. of Orthop. Surg., Shiga Univ. of Medical Science··S1886	
1-Po-95	Progression of motor paralysis due to cervical spine tumor using an animal model: Behavioral and neuroanatomical validation <i>Shunsuke Sato, et al.</i> , Dept. of Orthop. Surg., Kyorin Univ.··S1887	
1-Po-96	Antitumor and renal protective effects of decursin on human osteosarcoma cells <i>Yusei Katsuyama, et al.</i> , Dept. of Orthop., Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine··S1887	
1-Po-97	Analysis of molecular targets that induce terminal differentiation of osteosarcoma <i>Makoto Takeuchi, et al.</i> , Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School··S1888	
1-Po-98	PPAR gamma agonist overcomes doxorubicin-resistance by modulating P-glycoprotein <i>Takashi Higuchi, et al.</i> , Orthop. Kanazawa Red Cross Hosp.··S1888	
1-Po-99	The role of GPR64 in patients with bone tumors <i>Kenta Nakata, et al.</i> , Dept. of Musculoskeletal Surg., Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine··S1889	

16 : 30 ~ 17 : 05	Poster Tumors 2	Moderators H. Futani, J. Nishida
1-Po-100	The effect of teriparatide on metastatic bone tumors <i>Takashi Kawaragi, et al.</i> , Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine··S1889	
1-Po-101	Analysis of the tumor take of patient-derived bone and soft tissue tumor xenograft model using chicken eggs <i>Shunsuke Tamaki, et al.</i> , Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School··S1890	
1-Po-102	The mechanism of bone destruction in renal cancer using a bone microenvironment model <i>Daiichiro Takahara, et al.</i> , Dept. of Orthop. Surg., Yamagata Univ.··S1890	
1-Po-103	Investigation of novel therapeutics for epithelioid sarcoma using high-throughput screening <i>Akitomo Inoue, et al.</i> , Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S1891	
1-Po-104	Ultrasound-guided surgery for malignant soft tissue tumor <i>Takayuki Kawaguchi, et al.</i> , Dept. of Orthop. Surg., Hyogo Medical Univ.··S1891	
1-Po-105	Second-generation and third-generation CAR-T cell therapy for synovial sarcoma targeting ligands for activating receptor of natural killer cells (NKG2D ligands) <i>Tomohiro Miyazaki, et al.</i> , Div. of Orthop. Surg., Dept. of Regenerative and Transplant Medicine, Niigata Univ. Graduate School of Medical and Dental Sciences··S1892	
1-Po-106	(Withdrawn)	

2nd Day October 18 Room 1

8 : 00 ~ 9 : 30 Symposium 8

Moderators M. Nakamura, M. Koda

Current state of spinal cord injury and regenerative medicine

- 2-1-S8-1 Basic research of spinal cord injury aiming to overcome the glial scar
 *Kazu Kobayakawa, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.···S1893
- 2-1-S8-2 Human hepatocyte growth factor for acute spinal cord injury: Journey from bench to clinical
 trial and future perspective
 *Kazuya Kitamura, et al.*, Dept. of Orthop. Surg., National Defense Medical College···S1893
- 2-1-S8-3 Administration of Multilineage-differentiating stress-enduring cells after spinal cord injury
 in mice
 ··· *Gentaro Kumagai, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine···S1894
- 2-1-S8-4 Future of regenerative medicine for spinal cord injury
 *Narihito Nagoshi, et al.*, Dept. of Orthop. Surg., Keio Univ.···S1894
- 2-1-S8-5 Rehabilitation strategy after cell therapy for spinal cord injury
 *Toru Ogata*, Rehab. Med., Sensory and Motor System Medicine,
 Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo···S1895

9 : 40 ~ 11 : 10 Symposium 9

Moderators S. Ohtori, D. Sakai

Novel approaches to pain generators in lumbar degenerative diseases

- 2-1-S9-1 Gene therapeutic approach for degeneration prevention by maintaining intervertebral
 disc homeostasis
 *Takashi Yurube, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine···S1895
- 2-1-S9-2 Intradiscal administration of autologous platelet-rich plasma in patients with Modic type 1
 associated low back pain ··· *Nobuyuki Fujita, et al.*, Dept. of Orthop. Surg., Fujita Health Univ.···S1896
- 2-1-S9-3 Definitive diagnosis and new treatment strategies for sacroiliac joint pain
 *Daisuke Kurosawa, et al.*, Japan SIJ and LBP Center, JCHO Sendai Hosp.···S1896
- 2-1-S9-4 Elucidation of the mechanism of ligamentum flavum hypertrophy: Towards the development of
 novel treatment methods for lumbar spinal canal stenosis
 *Akinobu Suzuki*, Dept. of Orthop. Surg.,
 Osaka Metropolitan Univ. Graduate School of Medicine···S1897
- 2-1-S9-5 Lumbar degenerative disease and neuropathic pain
 *Tomoko Tetsunaga, et al.*, Locomotive Pain Center, Okayama Univ. Hosp.···S1897
- 2-1-S9-6 Spinal sagittal alignment and low back pain
 *Masayuki Miyagi, et al.*, Dept. of Orthop. Surg., Kitasato Univ.···S1898

11 : 30 ~ 12 : 30 Luncheon seminar 9

Moderator S. Ohtori

- 2-1-LS9-1 Recent advancements in the pathogenesis and pain management of ossification of the
 longitudinal ligament
 *Yasushi Oshima, et al.*, Orthop. Surg. Faculty of Medicine, The Univ. of Tokyo···S1898

12 : 40 ~ 13 : 40 Special lecture 2

Moderator H. Kawano

- 2-1-SL2-1 A steroid sample return mission Hayabusa2 : Challenging ultimate basic science with
 ultimate technology ··· *Yuichi Tsuda/Satoru Nakazawa*, Hayabusa2 Extended Mission Team,
 institute of Space and Astronautical Science, JAXA

13 : 50 ~ 14 : 50	Invited lecture 4	Moderators Y. Tanaka, T. Hashimoto
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2-1-II4 Current topics in research using weightbearing computed tomography (WBCT)
 *Francois Lintz*, Ramsay Healthcare Clinique de l'Union,
 Dept. Orthop., Foot and Ankle Surg., Saint-Jean, France...S1899

15 : 00 ~ 16 : 00	Instructional lecture 6	Moderator K. Yamamoto
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2-1-EL6 Preventive measures against orthopaedic surgical site infection and response to outbreaks
 *Yutaka Inaba, et al.*, Musculoskeletal Science,
 Yokohama City Univ. Graduate School of Medicine...S1899

16 : 10 ~ 17 : 40	Symposium 10	Moderators M. Ikeuchi, M. Ishijima
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- 2-1-S10-1 Mechanism of maintaining cartilage homeostasis in early stage of knee osteoarthritis
 *Yukio Akasaki, et al.*, Dept. of Orthop. Surg., Kyushu Univ...S1900
- 2-1-S10-2 Relationship between synovium and cartilage in knee osteoarthritis
 *Taku Saito*, Orthop. Surg., The Univ. of Tokyo...S1900
- 2-1-S10-3 Mechanisms of medial meniscal extrusion in early stage knee osteoarthritis
 *Shinnosuke Hada, et al.*, Dept. of Orthop., Juntendo Univ...S1901
- 2-1-S10-4 Epidemiological study focusing on the synovitis of early knee osteoarthritis
 *Eiji Sasaki, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S1901
- 2-1-S10-5 Mechanisms of pain in early knee osteoarthritis
 *Koji Aso, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ...S1902

2nd Day October 18 Room 2

8 : 00 ~ 11 : 20 Combo Session C

Zero to one: The challenge of innovation: Inventions by orthopaedic surgeons in Japan

8 : 00 ~ 9 : 00	Combo C/ Instructional lecture 1	Moderators N. Takahira, S. Kato
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- 2-2-CCEL1-1 Learn about the value of ideas, how to patent and protect your intellectual property
 *Naonobu Takahira*, Kitasato Univ. School of AHS...S1902
- 2-2-CCEL1-2 Core training equipment invented by a Japanese orthopaedic surgeon
 *Satoshi Kato*, Dept. of Orthop. Surg.,
 Graduate School of Medical Sciences, Kanazawa Univ...S1903

9 : 05 ~ 10 : 15	Combo C/ Symposium	Moderators N. Takahira, S. Kato
Learning from examples: Inventions by orthopaedic surgeons in Japan		

- 2-2-CCS-1 Importance of invention and patent for healthcare practitioners such as orthopaedic surgeons
 *Yoshihiro Fuji*, The Kitasato Institute...S1903
- 2-2-CCS-2 The development of cartilage regenerative medicine using high purity alginate gel (UPAL gel)
 *Tomohiro Onodera, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S1904
- 2-2-CCS-3 Development of novel technologies through the integration of medical and precision
 engineering: Multifaceted and sustainable industry-academia-government collaboration
 projects from bone precision machining to related devices development
 *Shinji Imade, et al.*, Dept. of Orthop., Shimane Univ...S1904
- 2-2-CCS-4 Study of bioresorbable silk fibroin hydrogel preventing postoperative adhesion with optimum
 barrier property *Yusuke Kawano, et al.*, Dept. of Orthop. Surg., Fujita Health Univ...S1905

2-2-CCS-5 Development and commercialization of a proximal femoral intramedullary nail made of carbon fiber-reinforced composite
 *Ichiro Nakahara, et al.*, Dept. of Orthop. Surg., Osaka Minami Medical Center...S1905

10 : 20 ~ 11 : 20	Combo C/ Instructional lecture 2	Moderator N. Takahira
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2-2-CCEL2 Development of Bio 3D Printer for organ regeneration
 *Koichi Nakayama*, Center for Regenerative Medicine Research Saga Univ...S1906

11 : 30 ~ 12 : 30	Luncheon seminar 10	Moderator S. Matsuda
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2-2-LS10-1 Periarticular joint infection and the antimicrobial implant development
 *Hiroyuki Tsuchiya*, Dept. of Orthop. Surg., Yokohama Sakae Kyosai Hosp...S1906

2-2-LS10-2 Efforts to prevent SSIs: Guidelines and iodine-coated implants
 *Toshiharu Shirai*, Kyoto Prefectural Univ. of Medicine...S1907

12 : 40 ~ 13 : 40	Invited lecture 5	Moderators A. Sudo, S. Imagama
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2-2-IL5-1 Let's think bigger: The Journal of Bone and Joint Surgery editor's perspective
 *Mohit Bhandari*, Dept. of Surg.,
 Canada Research Chair in Surgical Innovation, McMaster Univ. Hamilton, Canada...S1907

2-2-IL5-2 Evidence-based orthopaedics education in Canada
 *Natsumi Saka, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S1908

13 : 50 ~ 17 : 30 Combo Session E
Let's begin clinical research!

13 : 50 ~ 14 : 50	Combo E/ Instructional lecture	Moderators K. Yamada, H. Oka
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2-2-CEEL-1 Before starting your study: Types of study design and tips for choosing
 *Tomohiro Shinozaki*, Dept. of Info. & Comp. Tech., Fac. of Eng., Tokyo Univ. of Sci...S1908

2-2-CEEL-2 Starting cohort studies for beginners (overview)
 *Hiroyuki Oka*, Div. of Musculoskeletal AI System Development,
 Faculty of Medicine, The Univ. of Tokyo...S1909

15 : 00 ~ 15 : 50	Combo E/ Mini Symposium 1	Moderators K. Yamada, H. Oka
How to conduct cohort studies: Approach and practical implementation		

2-2-CEMS1-1 Epidemiological study of the degenerative spinal disease: The Wakayama Spine Study
 *Hiroshi Hashizume, et al.*, School of Health and Nursing Science,
 Wakayama Medical Univ...S1909

2-2-CEMS1-2 Creation of Real-World Evidence from Japanese Orthopaedic Association
 National Registry (JOANR), Real-World Data for musculoskeletal surgery
 *Tokumi Kanemura, et al.*, Dept. of Orthop. Surg., Konan Kosei Hosp...S1910

2-2-CEMS1-3 Society for orthopaedic surgical site infection
 *Koji Yamada, et al.*, Nakanoshima Orthop.s...S1910

16 : 00 ~ 16 : 30	Combo E/ Mini Lecture	Moderators K. Yamada, H. Oka
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2-2-CEML Starting randomized controlled trials for beginners (overview)
 *Hiroyuki Oka*, Div. of Musculoskeletal AI System Development,
 Faculty of Medicine, The Univ. of Tokyo...S1911

16 : 30 ~ 17 : 20 Combo E/ Mini Symposium 2

Moderators K. Yamada, H. Oka

How to conduct randomized controlled trials (RCTs): Approach and practical implementation

- 2-2-CEMS2-1 Lessons learned from the OSCIS randomized trial
.....*Hirotaka Chikuda*, Dept. of Orthop. Surg., Gunma Univ. Graduate School of Medicine...S1911
- 2-2-CEMS2-2 Tips for conducting NOCOTA study*Kosei Nagata*, The Univ. of Tokyo Hosp. ...S1912
- 2-2-CEMS2-3 Toward building evidence for pharmacotherapy for lumbar spinal stenosis: Practices and challenges of randomized controlled trials
.....*Takuya Nikaido, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ. ...S1912

17 : 20 ~ 17 : 30 Combo E/ General Remarks

Moderators K. Yamada, H. Oka

- 2-2-CE Let's think bigger!!*Koji Yamada, et al.*, Nakanoshima Orthop. s. ...S1913

2nd Day October 18 Room 3

8 : 00 ~ 9 : 30 Symposium 11

Moderators K. Terauchi, A. Nimura

Deepening understanding and exploration of pathophysiology through upper limb anatomy

- 2-3-S11-1 Anatomical analysis of the articular capsule based on the widths between the footprints
.....*Daisuke Momma, et al.*, Center for Sports Medicine, Hokkaido Univ. Hosp. ...S1913
- 2-3-S11-2 Subscapularis tendon tear and its anatomy
.....*Ryuzo Arai, et al.*, Dept. of Orthop. Surg., Kyoto Katsura Hosp. ...S1914
- 2-3-S11-3 Clinical anatomy for the elbow instability
.....*Junya Imatani, et al.*, Dept. of Orthop. Surg., Okayama Saiseikai General Hosp. ...S1914
- 2-3-S11-4 Anatomical analysis based on the muscle, tendinous structures and the joint capsule for elucidating the stabilization mechanism in the trapeziometacarpal joint
.....*Mio Norose, et al.*, Dept. of Orthop. and Spinal Surg.,
Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S1915
- 2-3-S11-5 Distal radius fracture and anatomy
.....*Natsumi Saka, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S1915

9 : 40 ~ 11 : 10 Symposium 12

Moderators K. Takase, N. Taniguchi

The cutting edge of basic research in shoulder

- 2-3-S12-1 Effects of glutaminase 1 inhibitor on rotator cuff derived cells
.....*Tatsuo Kato, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S1916
- 2-3-S12-2 Parathyroid hormone ameliorates fatty infiltration and muscle atrophy following rotator cuff tear via browning of fibro-adipogenic progenitors ...*Ryosuke Iio, et al.*, Dept. of Orthop. Surg.,
Osaka Metropolitan Univ. Graduate School of Medicine...S1916
- 2-3-S12-3 Glycyrrhizin inhibits fatty infiltration after rotator cuff tears
.....*Takumi Nakamura, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S1917
- 2-3-S12-4 Analysis of the expression of tendon-related markers in human rotator cuff-derived cells in three-dimensional culture and the efficacy of human rotator cuff spheroids in a rat rotator cuff repair model*Takahiro Furukawa, et al.*, Dept. of Orthop. Surg.,
Kobe Univ. Graduate School of Medicine...S1917
- 2-3-S12-5 Contribution of glycation and oxidative stress in frozen shoulder
.....*Hironori Tsurukami, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp. ...S1918
- 2-3-S12-6 The stability of acromioclavicular joint regarding acromioclavicular ligament reconstruction method using cadaveric study
.....*Fumiya Hattori, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S1918

11 : 30 ~ 12 : 30	Luncheon seminar 11	Moderator Y. Tanaka
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2-3-LS11-1 Quantifying pain and perception: Clinical application of the device for quantitative analysis of perception and pain *Takashi Miki*, Tohoku Univ. Hosp. ...S1919

12 : 40 ~ 13 : 40	Best oral award session of AICE	Moderators M. Yamazaki, Y. Ishibashi
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2-3-BO-1 *Lbx1* negatively regulates energy metabolism in mice
..... *Takahiro Nakagawa, et al.*, Dept. of Orthop. Surg., National Defense Medical College ...S1919

2-3-BO-2 Development of T cell receptor-engineered T cells targeting the sarcoma-associated antigen papillomavirus binding factor
..... *Shuto Hamada, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S1920

2-3-BO-3 Network organization of cells within anterior cruciate ligament: Possibility of cell-cell communication *Yoshihiro Sasazaki, et al.*, NHO Murayama Medical Center ...S1920

2-3-BO-4 Visceral fat is strongly associated with the severity of spinal ligament ossification
..... *Tsutomu Endo, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S1921

2-3-BO-5 Neuroprotective effects of methylcobalamin-containing nanofiber sheets
..... *Yoshiaki Yoshimura, et al.*, Dept. of Orthop. Surg.,
Graduate School of Medicine, Osaka Univ. ...S1921

2-3-BO-6 Elucidation of the molecular mechanisms of periosteal stem cell aging inducing delayed bone repair *Sataka Miyata, et al.*, Dept. of Immunol. and Cell Biol.,
Graduate School of Medicine, Osaka Univ. ...S1922

2-3-BO-7 Intramuscular bone induction and mechanism by a novel calcium compound
..... *Motonori Hashimoto, et al.*, Dept. of Orthop. and Spinal Surg.,
Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S1922

13 : 50 ~ 14 : 50	Instructional lecture 7	Moderator H. Ikegami
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2-3-EL7 New modality for irreparable rotator cuff repair and Japan-specific problem of reverse shoulder arthroplasty *Shinji Imai*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science ...S1923

15 : 00 ~ 16 : 00	Instructional lecture 8	Moderator E. Chosa
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2-3-EL8 Current concepts of subchondral insufficiency fracture *Takuaki Yamamoto*, Fukuoka Univ. ...S1923

16 : 10 ~ 17 : 40	Symposium 13	Moderators T. Yamamoto, T. Sakai
Prevention of femoral head collapse in osteonecrosis of the femoral head		

2-3-S13-1 Collapse mechanisms in osteonecrosis of the femoral head
..... *Goro Motomura, et al.*, Dept. of Orthop. Surg.,
Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ. ...S1924

2-3-S13-2 Therapeutic potential of microRNA for femoral head collapse and joint homeostasis in osteonecrosis of the femoral head
..... *Takeshi Shoji, et al.*, Dept. of Artificial Joints and Biomaterials,
Graduate School of Biomedical and Health Sciences, Hiroshima Univ. ...S1924

2-3-S13-3 Does Anti-Sclerostin antibody prevent the bone collapse after osteonecrosis?
..... *Yasuhiko Takegami, et al.*, Dept. of Orthop./Rheumatology,
Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
Graduate School of Medicine, Nagoya Univ. ...S1925

2-3-S13-4 Joint preserving regenerative therapy using rhFGF-2 gelatin hydrogel for avascular osteonecrosis
..... *Yutaka Kuroda, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S1925

2-3-S13-5 Autologous concentrated bone marrow injection for idiopathic osteonecrosis of the femoral head *Yasuhiro Homma, et al.*, Dept. of Orthop., Juntendo Univ.··S1926

2nd Day October 18 Room 4

8 : 00 ~ 9 : 00 Instructional lecture 9 Moderator S. Tanaka

2-4-EL9 Targeted therapies for rheumatoid arthritis
.....*Nobunori Takahashi*, Dept. of Orthop. Surg., Aichi Medical Univ.··S1926

9 : 10 ~ 10 : 10 Instructional lecture 10 Moderator T. Kubo

2-4-EL10 Perspectives on neurorehabilitation for orthopaedic diseases
.....*Nobuyuki Sasaki*, Dept. of Rehabil. Med., St. Marianna Univ. School of Medicine··S1927

10 : 20 ~ 11 : 20 Instructional lecture 11 Moderator A. Okawa

2-4-EL11 What orthopaedic surgeons need to know about patient safety
.....*Katsufumi Uchiyama, et al.*, Dept. of Patient Safety and Healthcare Administration,
Kitasato Univ.··S1927

11 : 30 ~ 12 : 30 Luncheon seminar 12 Moderator H. Akiyama

2-4-LS12-1 A review of the latest topics on implant metal materials that orthopedic surgeons should know. Do you know about Cobaltism?
.....*Yasuhiro Homma*, Dept. of Orthop., Juntendo Univ.··S1928

13 : 50 ~ 14 : 50 Deepening and exploration seminar 1 Moderator M. Saito

2-4-DES1-1 The evolution of the surgical assist technology for hip arthroplasty: The surgeon's spirit to use the navigation and robotic assist system*Kazuo Fujiwara*, Okayama City Hosp.··S1929

2-4-DES1-2 Evolution of computer assisted surgery in total knee arthroplasty: Expectations for robotic assisted surgery
.....*Hideki Mizu-uchi, et al.*, Dept. of Orthop. Surg., Saiseikai Fukuoka General Hosp.··S1929

15 : 00 ~ 16 : 00 Deepening and exploration seminar 2 Moderator T. Tomita

2-4-DES2-1 TBA*Masayuki Kamimura*, Dept. of Orthop. Surg.,
Tohoku Univ. Graduate School of Medicine··S1930

2nd Day October 18 Room 5

8 : 00 ~ 9 : 00 Free papers Cartilage: Pathology, others Moderators Y. Uchio, H. Satake

2-5-1 Systematic profiling of cellular senescence gene signature in osteoarthritic chondrocytes for prediction of disease progression*Yuki Ogawa, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1931

2-5-2 RNA sequencing and osteoarthritis studies in cartilage-specific KLF15 knockout mice
.....*Akira Saitoh, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1931

2-5-3 Visualization of water dynamics in articular cartilage using isotope microscopy
.....*Keizumi Matsugasaki, et al.*, Dept. of Orthop. Surg.,
Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1932

- 2-5-4 Effects of FGFR3 signaling on a mouse model of knee osteoarthritis
 *Sei Fujii, et al.*, Dept. of Orthop./Rheumatology,
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
 Graduate School of Medicine, Nagoya Univ.···S1932
- 2-5-5 Combination therapy with meclozine and growth hormone for promoting bone growth in a mouse
 model of achondroplasia *Kenta Sawamura, et al.*, Dept. of Orthop./Rheumatology,
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
 Graduate School of Medicine, Nagoya Univ.···S1933
- 2-5-6 Accuracy of cross-sectional measurement of the costal osteochondral graft by sonography:
 cadaveric study *Tetsuya Takenaga, et al.*, Dept. of Orthop. Surg.,
 Nagoya City Univ., Graduate School of Medical Sciences···S1933
- 2-5-7 Regulators of LRP4 and AGRIN expression in articular cartilage and their effect on
 β -catenin signaling *Shuichi Naniwa, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ.···S1934

9 : 10 ~ 10 : 10 Free papers

Moderators J. Toguchida, M. Ishikawa

Cartilage: Regeneration, treatments 1

- 2-5-8 Characterization of neotissue following combined autologous chondrocyte implantation for
 degenerative cartilage injury by RNA sequencing analysis
 *Tomoya Iseki, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ.···S1934
- 2-5-9 Cellular senescence contributes to spontaneous repair of the rat meniscus
 *Yusuke Aimoto, et al.*, Center for Stem Cell and Regenerative Medicine,
 Tokyo Medical and Dental Univ.···S1935
- 2-5-10 Long-term outcomes of single-step ultra-purified alginate gel implantation in patients with knee
 chondral defects *Yoshiaki Hosokawa, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1935
- 2-5-11 Development of osteochondral treatment using iPS cell-derived cartilage tissue/artificial bone
 composite for osteoarthritis of the knee *Akihiko Ezaki, et al.*, Dept. of Tissue Biochemistry,
 Graduate School of Medicine, Osaka Univ.···S1936
- 2-5-12 Neutrophil-derived extracellular vesicles suppress cartilage degeneration via promoting the
 production of chondrocyte secreted frizzled related protein 5
 *Keita Kitahara, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1936
- 2-5-13 Imeglimin may limit knee osteoarthritis development and progression
 *Yuki Hyodo, et al.*, Dept. of Orthop. Surg.,
 Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.···S1937
- 2-5-14 Effectiveness in promoting meniscus regeneration of granulocyte colony-stimulating factor in a
 rat meniscal defect model *Ken Iida, et al.*, Dept. of Orthop. Surg.,
 Osaka Metropolitan Univ. Graduate School of Medicine···S1937

10 : 20 ~ 11 : 20 Free papers

Moderators T. Sasho, H. Koga

Cartilage: Regeneration, Treatments 2

- 2-5-15 Morphological comparison of synovial and adipose mesenchymal stem cells in the course of
 cartilage adhesion *Yusuke Fuchioka, et al.*, Center for Stem Cell and Regenerative Medicine,
 Tokyo Medical and Dental Univ.···S1938
- 2-5-16 The mechanism of PRF-induced accelerated healing of meniscus injury
 *Yoshiyuki Senga, et al.*, Dept. of Musculoskeletal Surg.,
 Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine···S1938

- 2-5-17 Induction of mesenchymal stem cells by using gastruloid technology
 *Toshiyuki Takehara, et al.*, Regenerative Medicine, Kindai Univ. Hosp...S1939
- 2-5-18 A study on intra-articular residual evaluation using *in vivo* imaging after DFAT intra-articular
 administration in immunocompromised rats
 *Yosuke Sano, et al.*, Dept. of Orthop. Surg., Nihon Univ...S1939
- 2-5-19 Crosstalk of DKK1 and MIA in hyaline cartilage regeneration induced by juvenile
 chondrocyte sheets *Eriko Toyoda, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S1940
- 2-5-20 Biofabrication of scaffold-free cartilage constructs composed of adipose-derived stem cells using
 Bio-3D printer *Toshihiro Nonaka, et al.*, Dept. of Orthop. Surg., Saga Univ...S1940
- 2-5-21 Wnt/b-catenin signaling controls self-renewal and differentiation of growth
 plate chondroprogenitors *Takeshi Oichi, et al.*, Dept. of Orthop. Surg., Teikyo Univ...S1941

11 : 30 ~ 12 : 30	Luncheon seminar 13	Moderator M. Matsumoto
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- 2-5-LS13-1 Evaluation of shoulder function and treatment strategies for shoulder pathologies
 *Noboru Matsumura*, Dept. of Orthop. Surg., Keio Univ...S1941

12 : 40 ~ 13 : 20	Free papers Bone: Pathology, others	Moderators H. Mishima, T. Kawasaki
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- 2-5-22 Plain radiography can be used as a substitute for CT in radially evaluating the head-neck junction
 of the femur *Tomohiro Mimura, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science...S1942
- 2-5-23 (Withdrawn)
- 2-5-24 Cyclic compressive mechanical loading induces osteoblastic activity by activating energy
 metabolism and mitochondria function in osteoblasts
 *Shu Somemura, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S1943
- 2-5-25 NRF2 activation suppresses osteogenic differentiation via enhancing stemness in human bone
 marrow-derived mesenchymal stromal cells
 *Takahiro Onoki, et al.*, Dept. of Orthop. Surg., Tohoku Univ. Graduate School of Medicine...S1943
- 2-5-26 Crosstalk between periosteum and vascular system through notch signaling
 *Toshiyuki Ogata, et al.*, Dept. of Orthop. Surg., Keio Univ...S1944

13 : 40 ~ 14 : 30	Free papers Anatomy, biomechanics 2	Moderators T. Sakai, A. Kanaji
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- 2-5-27 Kinematic analysis of the pelvic and lower extremity in acetabular dysplasia using
 three-dimensional motion analysis *Shinichi Ueki, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S1944
- 2-5-28 Pelvic stress distribution immediately after rotational acetabular osteotomy using finite
 element analysis *Kensei Tanaka, et al.*, Dept. of Endoprosthetic Surg., Oita Univ...S1945
- 2-5-29 Mechanical studies for the rotational stability of a cemented stem in cases with stem anteversion
 adjustment in the cement mantle
 *Shigeo Fukunishi, et al.*, Dept. of Orthop. Surg., Nishinomiya Kaisei Hosp...S1945
- 2-5-30 *In vitro* evaluation of acetabular host bone coverage and cemented cup stability in total
 hip arthroplasty *Yu Takeda, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ...S1946
- 2-5-31 Effect of the posterior capsular ligament and external rotator muscles reconstruction in the
 posterolateral approach of total hip arthroplasty: A cadaveric study
 *Kohei Kono, et al.*, Dept. of Orthop. Surg., Ehime Univ. Graduate School of Medicine...S1946
- 2-5-32 Development and analysis of a developmental dysplasia of the hip model considering the
 mechanical properties of the capsular ligament
 *Hiroaki Kijima, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S1947

14 : 40 ~ 15 : 20 Free papers Anatomy, biomechanics 3	Moderators Y. Kobayashi, Y. Kudo
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- 2-5-33 Mechanical characteristics of anterior, posterior, and anterior-posterior fixation of the cervical soft tissue injuries *Norihiro Nishida, et al.*, Yamaguchi Univ. ...S1947
- 2-5-34 Biomechanical comparison of pedicle screw fixation strength with traditional technique and the SEPS/DEPS technique in cadaver spine: What screw shape is optimal for the DEPS technique? *Takumi Takeuchi, et al.*, Dept. of Orthop. Surg., Kyorin Univ. ...S1948
- 2-5-35 Investigation of knee-spine syndrome using a 3-dimensional body musculoskeletal model *Yuhei Kotaki, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine ...S1948
- 2-5-36 Optimal placement of accessory rods to prevent rod fracture in a long spinopelvic fixation: In-vitro biomechanical and finite element analysis *Ryuichiro Nakanishi, et al.*, Dept. of Orthop. Surg., Wakayama Medical Univ. ...S1949
- 2-5-37 FEA for mechanism of occasional ALL rupture with posterior correction procedure in corrective surgery for adult spinal deformity using LLIF *Hiroki Takeda, et al.*, Dept. of Spine and Spinal Cord Surg., Fujita Health Univ. ...S1949

15 : 40 ~ 16 : 30 Free papers Electrophysiology	Moderators Y. Matsuyama, S. Imagama
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- 2-5-38 Can anal plug predict postoperative bladder and bowel dysfunction during intramedullary tumor surgery? *Kenta Kurosu, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S1950
- 2-5-39 Dual action simulation practice combined with transcranial magnetic stimulation increases corticospinal excitation *Kazumasa Konishi, et al.*, Dept. of Orthop. Surg., Kyorin Univ. ...S1950
- 2-5-40 Elucidating the origin and pathways of transcranial stimulation motor evoked potentials for intraoperative neurophysiological spinal cord monitoring *Masahito Takahashi, et al.*, Dept. of Orthop. Surg., Kyorin Univ. ...S1951
- 2-5-41 Phase angle in lower limbs determined by the bioelectrical impedance is associated with the locomotive syndrome -The Bunkyo Health Study *Yuichiro Machiyama, et al.*, Dept. of Orthop., Juntendo Univ. ...S1951
- 2-5-42 A cut-off value of the baseline amplitude for reduce false positives in transcranial motor evoked potential monitoring *Go Yoshida, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine ...S1952
- 2-5-43 Evaluation of the lumbar neural activity after the stimulation of the saphenous nerve using Magnetospinography *Hisato Higashikawa, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S1952

16 : 40 ~ 17 : 40 Free papers Motion analysis, rehabilitation 1	Moderators M. Kajitani, S. Demura
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- 2-5-44 Gait analysis in cervical myelopathy based on wearable inertial sensors in insoles: In the hope of application to screening disease in everyday life *Kazuya Tsukamoto, et al.*, Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ. ...S1953
- 2-5-45 Gait based prediction of lumbar spinal stenosis using artificial intelligence *Ken Kadoya, et al.*, Dept. of Advanced Medicine for Locomotor System, Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ. ...S1953
- 2-5-46 Gender differences in spinal mobility during postural changes: A detailed analysis using upright CT *Ryo Mizukoshi, et al.*, Dept. of Orthop. Surg., Keio Univ. ...S1954
- 2-5-47 Abdominal wall-sacral distance (SAD) correlates with resting energy metabolic rate *Takashi Nagai, et al.*, Dept. of Rehabilitation Medicine, Showa Univ. ...S1954

- 2-5-48 Limitations of quantitative exercise intervention effects and timing for review of exercise content
 *Yuh Watanabe, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S1955
- 2-5-49 Prevalence of locomotive syndrome in preoperative cancer patients by cancer type
 *Yoshimi Katayama, et al.*, Central Rehabilitation Service, Okayama Univ. Hosp....S1955
- 2-5-50 Development of a new exercise load index using sweat lactic acid sensor
 *Daisuke Nakashima, et al.*, Dept. of Orthop. Surg., Keio Univ....S1956

2nd Day October 18 Room 6

8 : 00 ~ 9 : 00 Free papers Soft tissue tumors 2 Moderators K. Hiraoka, Y. Hagiwara

- 2-6-1 (Withdrawn)
- 2-6-2 Alpha-Emitting therapy using 211At-AAMT targeting LAT1 in bone and soft tissue sarcoma
 *Haruna Takami, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ....S1957
- 2-6-3 Novel mechanisms promoting malignant transformation in malignant peripheral nerve sheath
 tumors: Discovery of protein-protein interactions between transcription factors PRRX1
 and TOP2A *Shota Takihira, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ....S1957
- 2-6-4 The reintroduction of INI1 in EPS cells demonstrated a diminishment in tumorigenicity and
 identified a novel target, the AURKA/PLK1/CDC25C axis
 *Akitomo Inoue, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ....S1958
- 2-6-5 Therapeutic development of hypoxia-responsive doxorubicin prodrug for soft tissue sarcoma
 *Taisuke Furuta, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S1958
- 2-6-6 The role of catecholamine synthesizing pathway in MPNST cells and its potential as a
 therapeutic target *Haruyoshi Katayama, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ....S1959
- 2-6-7 The preventive effects of bisphosphonates and vitamin D on bone loss in mouse with soft tissue
 sarcoma treated with anticancer drugs
 *Manami Nakanishi, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S1959

9 : 10 ~ 10 : 10 Free papers Bone tumors 1 Moderators Y. Matsumoto, Y. Tome

- 2-6-8 Effects of 'separation' in intraoperative cryoablation for spinal metastasis
 *Takaaki Uto, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical Sciences, Kanazawa Univ....S1960
- 2-6-9 Comparison of tumor-specific immunoenhancing effects (abscopal effect) of cryoablation,
 radiofrequency ablation and radiotherapy in metastatic bone tumors
 *Masafumi Kawai, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical Sciences, Kanazawa Univ....S1960
- 2-6-10 Effect of acridine orange and zoledronic acid on bone metastasis in renal cell carcinoma
 *Keita Oya, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S1961
- 2-6-11 Should contrast medium be used in whole-body CT for skeletal metastasis of unknown
 primary origin? *Toshio Kojima, et al.*, Dept. of Orthop. Surg., Nihon Univ....S1961
- 2-6-12 Biomechanical risk assessment of femoral pathological fracture using finite element method
 *Tatsuro Saruga, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S1962
- 2-6-13 Identification of p21-positive immature osteoblasts in the long bone of growing mice
 *Masato Saito, et al.*, Dept. of Orthop. Surg., Keio Univ....S1962

2-6-14 Bone tumor detection and classification in full-field extremity radiographs using DINO deep learning model.....*Masashi Yamana, et al.*, Dept. of Orthop. Surg., Clinical Medicine, Graduate School of Medical Sciences, Kyushu Univ.··S1963

10 : 20 ~ 11 : 20	Free papers	Bone tumors 2	Moderators	H. Kawashima, S. Yamamoto
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2-6-15 Analysis of CDK5-mediated functional regulation of GSK-3b and tumor proliferative ability in Ewing's sarcoma cell lines*Masanori Kawano, et al.*, Dept. of Orthop. Surg., Oita Univ.··S1963

2-6-16 Development of a novel method for liquid biopsy using extracellular vesicles derived from Ewing sarcoma cells*Koji Uotani, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.··S1964

2-6-17 Characterization of slow-cycling cells in Ewing sarcoma utilizing comprehensive genetic analysis*Yuta Nakamatsu, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1964

2-6-18 Clinical characteristics and treatment of ultra-rare sarcoma: A study using the US SEER database*Ryuichi Fukuda, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1965

2-6-19 Evaluation of the anti-tumor effect of high hydrostatic pressure using rabbit squamous cell carcinoma*Satoshi Nagatani, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ.··S1965

2-6-20 Anti-tumor effect of LED light on chordoma*Shunsuke Tamaki, et al.*, Dept. of Orthop., Institute of Biomedical Sciences, Tokushima Univ. Graduate School··S1966

2-6-21 Survival analysis of malignant bone tumors originating in the foot: An examination of 6,541 cases using the United States SEER database*Masatake Matsuoka, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.··S1966

11 : 30 ~ 12 : 30	Luncheon seminar 14	Moderator	Y. Ishibashi
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2-6-LS14-1 Current and future strategies for osteoarthritis treatment*Yasuo Niki*, Fujita Medical Innovation Center Tokyo··S1967

12 : 40 ~ 13 : 30	Free papers	Bone tumors 3	Moderators	T. Ozaki, T. Akisue
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2-6-22 Role s of SPRR1A in tumorigenesis of osteosarcoma a study using newly generated artificial cancer stem cells*Tomohiro Miyamoto, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S1967

2-6-23 Role of tumor-associated macrophage-derived IL-8 in the osteosarcoma microenvironment*Rikito Tatsuno, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Science, Univ. of Yamanashi··S1968

2-6-24 The involvement of epithelial-mesenchymal transition inducers in pulmonary metastasis of osteosarcoma*Taehwi Park, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science··S1968

2-6-25 Comparing clinical sequencing between Japan and the USA*Yoshiyuki Suehara, et al.*, Div. of Cellular Signaling, NCC··S1969

2-6-26 Development of a novel osteosarcoma treatment using doxorubicin prodrug that exerts its pharmacological effects under hypoxic conditions*Koki Yoshioka, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ.··S1969

2-6-27 Pterostilbene sensitizes osteosarcoma cells to killing by cMYC inhibitors*Shingo Kishi, et al.*, Res. Ins. Nozaki Tokusyukai··S1970

13 : 40 ~ 14 : 20 Free papers Infection 1

Moderators T. Masaoka, J. Takeba

- 2-6-28 Optimal timing of intraoperative irrigation for prevention of periprosthetic joint infection: *In vitro* study *Tomoyuki Kataoka, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ. ...S1970
- 2-6-29 Exploring the optimal dilution of povidone-iodine solution for the prevention of periprosthetic joint infection (PJI) in orthopaedic *Musashi Ima, et al.*, Dept. of Orthop. Surg., Graduate School of Medical Sciences, Kanazawa Univ. ...S1971
- 2-6-30 Blood gentamicin concentration and complications of continuous local antibiotics perfusion in periprosthetic joint infection and septic arthritis *Masashi Shimoda, et al.*, Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine ...S1971
- 2-6-31 Establishment of an analytical method for advanced glycation end products (AGEs) accumulating in biofilms *Shoutaro Arakawa, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine ...S1972
- 2-6-32 Continuous local antibiotic perfusion procedure for surgical site infection after shoulder surgery *Yohei Shimada, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. Hosp. ...S1972

14 : 40 ~ 15 : 30 Free papers Infection 2

Moderators H. Nagashima, M. Yagi

- 2-6-33 The use of alpha-defensin lateral flow test in spinal infections: Antimicrobial administration and characteristics of each pathogen *Atsushi Yoshida, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine ...S1973
- 2-6-34 Identification of pathogenic bacteria in cases of infection in the spinal region: Application of long-read next-generation sequencers *Yuta Hieda, et al.*, Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine ...S1973
- 2-6-35 Molecular mechanisms of biofilm formation caused by causative agents of periprosthetic joint infection *Keigo Yonemoto, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine ...S1974
- 2-6-36 Long-term cultivation triggers increased susceptibility of biofilm cells to antibiotics *Keiichiro Hara, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine ...S1974
- 2-6-37 Development of an innovative rapid molecular diagnostic panel for antimicrobial selection of biofilm associated infection around orthopaedic implant *Narumi Ueda, et al.*, Dept. of Orthop. Surg., Kansai Medical Univ. Medical Center ...S1975
- 2-6-38 Accuracy of real-time PCR based genetic diagnosis for orthopaedic infections *Hyonmin Choe, et al.*, Dept. of Orthop. Surg, Yokohama City Univ. ...S1975

15 : 40 ~ 16 : 30 Free papers

Moderators Y. Tochigi, Y. Yasui

Tendon and ligament: Pathology 3

- 2-6-39 Strain pattern of each ligamentous band of normal and repair/reconstructed ankle ligaments using miniaturization ligament performance probe system (MLPP system): A cadaver study *Masato Takao, et al.*, CARIFAS, Jujo Hosp. ...S1976
- 2-6-40 Talar-tilt angle under valgus stress may be useful for detecting deltoid ligament injury in simple lateral malleolar fracture *Kentaro Matsui, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S1976
- 2-6-41 Deltoid ligament assessment using radial MRI *Yoshihiro Akatsuka, et al.*, Div. of Radiology and Nuclear Medicine, Sapporo Medical Univ. Hosp. ...S1977
- 2-6-42 Amount of change in ankle joint motion in a model of deltoid ligament injury focusing on deep layer and compound motion *Yuta Mori, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S1977

- 2-6-43 Load sharing in each fiber bundle of the deltoid ligament focusing on deep layer and compound motion *Yuta Mori, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S1978
- 2-6-44 Biomechanical analysis of tibiotalar joint kinematics in deltoid ligament injury models during anterior and posterior loading: Using a 6 degrees-of-freedom robotic system *Katsunori Takahashi, et al.*, Dept. of Orthop Surg., Saiseikai Otaru Hosp. ...S1978

16 : 40 ~ 17 : 30	Free papers	Moderators K. Watanabe, S. Yamaguchi
Tendon and ligament: Pathology 4		

- 2-6-45 TNF α -dependent mTOR activity is required for tenotomy-induced ectopic ossification in mice *Yu Kushima, et al.*, Dept. of Orthop. Surg., National Defense Medical College ...S1979
- 2-6-46 Effects for fibrous changes Achilles tendon with acceleration ovarian failure mice *Naohito Sato, et al.*, Dept. of Orthop. Surg., School of Medicine, Univ. of Occupational and Environmental Health ...S1979
- 2-6-47 Does platelet-rich plasma therapy truly enhance healing in Achilles tendon rupture? A double-blind randomized controlled trial using quantitative MRI evaluation *Youichi Yasui, et al.*, Dept. of Orthop. Surg., Teikyo Univ. ...S1980
- 2-6-48 The therapeutic effect of equine tendinopathy using spheroids of equine mesenchymal stem cells *Norihisa Tamura, et al.*, JRA Equine Research Institute ...S1980
- 2-6-49 Immobilization after trauma attenuates tendon heterotopic ossification through rescuing Mohawk gene expression in a mouse Achilles tenotomy model *Masashi Isaji, et al.*, Dept. of Orthop. Surg., National Defense Medical College ...S1981
- 2-6-50 PI3K-Akt signalling regulates Tppp3-lineage tendon sheath synovial cells in physiological tendon regeneration *Atsushi Goto, et al.*, Dept. of Orthop. Surg., Div. of Disease Control, Research field of Medical Sciences, Graduate School of Medicine, Gifu Univ. ...S1981

2nd Day October 18 Room 7

8 : 00 ~ 9 : 00	Free papers	Artificial joints		Moderators T. Otani, M. Takao
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- 2-7-1 Intraoperative evaluation of the pressure between implants using a pressure sensor in total hip arthroplasty *Tomohiro Inoue, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ. ...S1982
- 2-7-2 Corrosion of polish tapered stem in periprosthetic fracture *Takashi Toyoda, et al.*, Dept. of Orthop. Surg., Kansai Medical Univ. ...S1982
- 2-7-3 3D analysis of the acetabular cup and iliopsoas tendon in THA using image matching method: Evaluation of the acetabulum in full circumference manner with radar chart *Sakura Kuniyoshi, et al.*, Orthop. Surg., Graduate School of Medicine, Univ. of the Ryukyus ...S1983
- 2-7-4 Mechanical influences of offset and stem length to cementless stem initial fixation *Yutaro Shibuta, et al.*, Dept. of Orthop. Surg., Oita Univ. ...S1983
- 2-7-5 Effect of bearing design in cruciate retaining total knee arthroplasty on knee joint kinematics, laxity and ligament tension *Yohei Okada, et al.*, Dept. of Orthop. Surg., Sapporo Medical Univ. ...S1984
- 2-7-6 Joint line orientation angle during gait and lower limb alignment *Sayako Sakai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ. ...S1984
- 2-7-7 Essential anatomy of the popliteal artery in total knee arthroplasty: A cadaveric study *Hideo Imai, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ. ...S1985

9 : 10 ~ 10 : 10 Free papers Bone: Osteoporosis 1 Moderators H. Yamada, S. Nozawa

- 2-7-8 Therapeutic potentials of Annexin A1 in postmenopausal osteoporosis: *In vivo* evidence on the usefulness of pro-resolving lipid mediators in the treatment
 *Yoshio Nishida, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1985
- 2-7-9 Anti-CD52 antibody maintains osteal macrophage function and prevents
 postmenopausal osteoporosis *Yoshio Nishida, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1986
- 2-7-10 *In silico* investigation of bone-turnover variability based on progenitor dynamics
 *Young Kwan Kim, et al.*, Institute for Life and Medical Sciences, Kyoto Univ.···S1986
- 2-7-11 Investigation of medication-related osteonecrosis of the jaw: Kure Data-based Results and
 Evidence Assisted by a Multiprofession Study (KureDREAMS)
 *Manabu Tsukamoto, et al.*, Dept. of Orthop. Surg.,
 School of Medicine, Univ. of Occupational and Environmental Health···S1987
- 2-7-12 Osteoporosis and sarcopenia are associated with each other and reduced IGF1 levels are a risk for
 both diseases in the very old elderly *Ryosuke Hata, et al.*, NHO Saitama Hosp.···S1987
- 2-7-13 Ortf1 facilitates Osterix expression and bone formation
 *Yu Yamashita, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine···S1988
- 2-7-14 Exogenous myokine irisin promotes osteoblast differentiation and osteogenesis via BMP
 signaling pathway *Yohei Ohyama, et al.*, Dept. of Orthop. Surg.,
 Osaka Metropolitan Univ. Graduate School of Medicine···S1988

10 : 20 ~ 11 : 20 Free papers Bone: Osteoporosis 2 Moderators T. Saito, K. Yamauchi

- 2-7-15 Methods and relevancy in measuring the bone mineral density of the fractured or deformed hip:
 Comparison with the fresh isolated femoral head
 *Runa Minami, et al.*, Dept. of Orthop. Surg., Otokoyama Hosp.···S1989
- 2-7-16 Quantitative evaluation of distal tibial bone quality in surgical cases of ankle osteoarthritis
 *Yoshiki Tayama, et al.*, Dept. of Orthop. Surg., Dokkyo Medical Univ. Saitama Medical Center···S1989
- 2-7-17 Evaluation of bone union at the proximal tibia osteotomy in a chronic kidney disease model rats
 *Kenta Tominaga, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine···S1990
- 2-7-18 DAP12/TREM2 signal affects excessive bone resorption after discontinuation of
 anti-RANKL antibody *Hotaka Ishizu, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1990
- 2-7-19 Transcriptional factor REST is involved the age-related inhabitation of osteogenesis
 *Norizumi Imazu, et al.*, Dept of Medicine for Orthop and Motor Organ., Juntendo Univ.···S1991
- 2-7-20 Relationship between bone loss and cellular senescence after discontinuation of PTH
 *Masayuki Bun, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.···S1991
- 2-7-21 Osteoporosis in OVX mice is promoted by mild inflammatory bowel disease and suppressed by
 antibiotic-induced dysbiosis *Ryota Suzuki, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S1992

11 : 30 ~ 12 : 30 Luncheon seminar 15 Moderator M. Ishijima

- 2-7-LS15-1 Intraarticular injection of hyaluronan for knee osteoarthritis
 *Shinya Ishizuka,* Dept. of Orthop. Surg., Nagoya Univ.···S1992

12 : 40 ~ 13 : 20 Free papers Joint diseases 3 Moderators H. Funasaki, H. Shitara

- 2-7-22 The inhibitory impact of zoledronate on a rat rotator cuff tear shoulder arthropathy model
 *Hiroki Tawaratsumida, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical and Dental Sciences, Kagoshima Univ.···S1993
- 2-7-23 BMP signaling is involved in rotator cuff tear arthropathy
 *Tomohiro Iuchi, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical and Dental Sciences, Kagoshima Univ.···S1993
- 2-7-24 Establishment of a modified rotator cuff tear arthropathy model in mice
 *Yusuke Masuda, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medical and Dental Sciences, Kagoshima Univ.···S1994
- 2-7-25 PAI-1 involvement in a mouse model of frozen shoulder
 *Chikara Watanabe, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S1994
- 2-7-26 SOD1,PRDX4, and NOX4, oxidative stress genes, are involved in frozen shoulder
 *Hironori Tsurukami, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp.···S1995

13 : 40 ~ 14 : 30 Free papers Bone: Osteoporosis 3 Moderators Y. Nagaya, N. Miyakoshi

- 2-7-27 Hounsfield unit to serum pentosidine ratio reflects bone density and quality and predicts screw loosening after lumbar interbody fusion
 *Daigo Arimura, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine···S1995
- 2-7-28 Bone union-promoting effect of romosozumab in an ovariectomized rat posterolateral lumbar fusion model
 *Kohei Okuyama, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ.···S1996
- 2-7-29 Exploring the impact of pregnancy heparin usage based on estimated bone density values using an AI osteoporosis diagnosis assistance system
 *Yuki Enomoto, et al.*, Dept. of Obstetrics and Gynecology,
 The Univ. of Tokyo Hosp., The Univ. of Tokyo···S1996
- 2-7-30 miR-26a play a vital role of bone metabolism in a growth period
 *Yuki Matsubara, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S1997
- 2-7-31 The optimal treatment duration of transcutaneous CO2 application for fracture healing
 *Hyuma Kondo, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine···S1997
- 2-7-32 Effects of transcutaneous CO2 application in a rat fracture model of disuse osteoporosis
 *Hyuma Kondo, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine···S1998

14 : 40 ~ 15 : 40 Free papers Motion analysis, rehabilitation 2 Moderators T. Ooe, T. Sunagawa

- 2-7-33 Three-dimensional analysis of shoulder internal rotation behind the back in patients with frozen shoulder *Takafumi Niwa, et al.*, Dept. of Orthop. Surg., Keio Univ.···S1998
- 2-7-34 Does the number of pitches affect the scapular position of baseball pitchers?
 *Keisuke Tsukada, et al.*, Dept. of Orthop. Surg., Teikyo Univ.···S1999
- 2-7-35 Adaptation process after tendon transfer surgery: Regulation mechanisms from muscle and brain activity *Yuki Hara, et al.*, NCNP···S1999
- 2-7-36 Is the side pinch strength accurately measured?
 *Konosuke Yamguchi, et al.*, Dept. of Orthop. Surg., Kagawa Univ.···S2000
- 2-7-37 Anatomical study regarding the radial side of thumb metacarpophalangeal joint
 *Jun Hishiyama, et al.*, Dept. of Orthop. and Spinal Surg.,
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.···S2000

- 2-7-38 Creation of a moving distance calculation algorithm using a wearable glasses-type 6-axis sensor
 *Takato Hoshino, et al.*, Medical Engineering Course,
 Graduate School of Medicine, Chiba Univ.··S2001
- 2-7-39 Rate of torque development is a useful indicator of muscle quality
 *Shota Oda, et al.*, Rehabilitation Center, Kochi Medical School Hosp.··S2001

15 : 50 ~ 16 : 30	Free papers	Moderators T. Ichiseki, K. Sakaguchi
Tendon and ligament: Pathology 5		

- 2-7-40 Preventive effect of taurine and antioxidants for degenerative rotator cuff tears
 *Shusuke Ueda, et al.*, Dept. of Orthop. Surg., Kanazawa Medical Univ.··S2002
- 2-7-41 Single-cell RNA-sequencing reveals characteristics of Scleraxis and Sox9-expressing cell
 populations in the rat healing enthesis after rotator cuff repair
 *Shuntaro Tanimura, et al.*, Dept. of Orthop. Surg., Faculty of Life Sciences, Kumamoto Univ.··S2002
- 2-7-42 Correlation between Mitochondrial impairment and stump classification in rotator cuff tears
 *Masaya Kusunose, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S2003
- 2-7-43 Quantitative evaluation of the contribution of the middle and inferior glenohumeral ligaments to
 anterior shoulder stability using ultrasonography
 *Tomoya Ono, et al.*, Dept. of Orthop. Surg., Nagoya City Univ. Mirai Kousei Hosp.··S2003
- 2-7-44 Involvement of infraspinatus muscle contractility on acromio-humeral distance after rotator
 cuff repair *Ryuta Oishi, et al.*, Dept. of Orthop. Surg., Yamagata Univ.··S2004

16 : 40 ~ 17 : 40	Free papers	Moderators N. Matsumura, E. Hashimoto
Tendon and ligament: Regeneration and treatments		

- 2-7-45 Non-thermal atmospheric pressure gas discharge plasma enhances tendon-to-bone junction repair
 in a rabbit model *Katsumasa Nakazawa, et al.*, Dept. of Orthop. Surg.,
 Osaka Metropolitan Univ. Graduate School of Medicine··S2004
- 2-7-46 Inhibition of AGE-induced oxidative stress in rotator cuff-derived cells by an A-II antagonist
 *Shunsaku Takigami, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine··S2005
- 2-7-47 The longitudinal evaluation of angiogenesis associated with graft healing after arthroscopic
 superior capsule reconstruction using power Doppler sonography
 *Akihiro Uchida, et al.*, Dept. of Orthop. Surg., Osaka Medical and Pharmaceutical Univ.··S2005
- 2-7-48 Histological and genetic changes induced by extracorporeal shockwave therapy after rotator cuff
 repair in a model rat with chronic rotator cuff tears
 *Masataka Kamiyama, et al.*, Dept. of Orthop. Surg.,
 Gunma Univ. Graduate School of Medicine··S2006
- 2-7-49 EHDP core-shell scaffolds for enthesis regeneration with layer-specific growth factors
 *Lang Bai, et al.*, Dept. of Orthop.
 The First Affiliated Hosp. of Xi'an Jiaotong Univ., Shaanxi, China··S2006
- 2-7-50 Dual-triphase microfibrinous scaffolds for lipidomic remodeling in rotator cuff healing
 *Lang Bai, et al.*, Dept. of Orthop.
 The First Affiliated Hosp. of Xi'an Jiaotong Univ., Shaanxi, China··S2007
- 2-7-51 Bioprinted living tissue constructs with layer-specific growth factors for rotator cuff
 enthesis healing *Lang Bai, et al.*, Dept. of Orthop.
 The First Affiliated Hosp. of Xi'an Jiaotong Univ., Shaanxi, China··S2007

2nd Day October 18 Room 8

8 : 00 ~ 9 : 00 Free papers Surgery, others 1 Moderators K. Kanzaki, K. Nishida

- 2-8-1 Percutaneous pedicle screw placement for robot-assisted spine surgery
 *Yoshiaki Torii, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S2008
- 2-8-2 The nutritional status during the perioperative period of spinal fusion surgery: Over 90% of cases experience malnutrition
 *Masahiro Inuma, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. Yokohama Seibu Hosp...S2008
- 2-8-3 A study of the influence of metal implants and height change on postoperative body composition in adolescent idiopathic scoliosis patients
 *Hiromori Sagae, et al.*, Dept. of Orthop. Surg., Yamagata Univ...S2009
- 2-8-4 Analysis of central nervous system microglial distribution and neuropathic pain-related factors expression in acute spinal cord injury and chronic compressive myelopathy
 *Arisa Kubota, et al.*, Dept. of Orthop. Univ. of Fukui...S2009
- 2-8-5 Effectiveness and safeness of the power tool with a real haptic interface in orthopaedic surgery
 *Toshiki Wakabayashi, et al.*, Dept. of Orthop. Surg., Keio Univ...S2010
- 2-8-6 Effect of the novel cannulated drill bit on drill-hole diameter accuracy and screw pull-out strength
 *Masaya Sato, et al.*, Dept. of Orthop., Shimane Univ...S2010
- 2-8-7 Investigation of fixation force depending on the position of the rod for circular external fixator
 *Koji Nozaka, et al.*, Dept. of Orthop. Surg., Akita Univ. Graduate School of Medicine...S2011

9 : 10 ~ 10 : 10 Free papers Surgery, others 2 Moderators S. Ebata, K. Ryu

- 2-8-8 An innovative device preventing neurovascular injury during drilling for distal screw holes of the plate in medial-opening wedge high tibial osteotomy
 *Masafumi Itoh, et al.*, Dept. of Orthop. Surg., Tokyo Women's Medical Univ...S2011
- 2-8-9 Arthroscopic surgery training using fresh porcine knees: A practical approach to enhancing skills for orthopaedic residents
 *Shunta Hanaki, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences...S2012
- 2-8-10 Dynamic balance evaluation of diabetic patients using a novel apparatus for exposing horizontal swing load
 *Yuki Yanagawa, et al.*, Rehabilitation Center, Kochi Medical School Hosp...S2012
- 2-8-11 The injury ratios according to maturity status: A study with 100 athletes in an elite tennis academy
 *Yoshimasa Saigo, et al.*, Dept. of Orthop., Juntendo Univ...S2013
- 2-8-12 Human amnion derived mesenchymal stem cells modulate graft survival in a rat hind limb allotransplantation model
 *Daichi Sakamoto, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Kyoto Univ...S2013
- 2-8-13 Effect of intermittent extracellular low pH environment on human umbilical vein endothelial cell activity
 *Ryota Nishida, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S2014
- 2-8-14 Functional characterization of aging and frailty-related metabolites through whole blood metabolomics
 *Masahiro Kameda, et al.*, Geriatric Unit, Kyoto Univ. Hosp...S2014

10 : 20 ~ 11 : 20 Free papers Motion analysis, rehabilitation 3 Moderators T. Soejima, H. Horiuchi

- 2-8-15 Spinopelvic fixation surgery increase the hip joint moment: Adjacent joint disease
 *Takuhei Kozaki, et al.*, Saiseikai Wakayama Hosp...S2015
- 2-8-16 A prospective comparative study using synchronized 3D gait analysis and electromyography: Postural changes and muscle activities in patients with ASD and L-SCS
 *Takahiro Sunami, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba...S2015

- 2-8-17 Significance of angular velocity of external rotation in quantitative evaluation of pivot shift test: Usefulness of inertial sensor *Kyohei Ota, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences...S2016
- 2-8-18 Relationship between tibial tuberosity acceleration during gait and subchondral bone density distribution across proximal tibia in patients with knee osteoarthritis *Kento Sabashi, et al.*, Dept. of Rehabilitation, Hokkaido Univ. Hosp....S2016
- 2-8-19 Classification of knee acceleration waveforms in patients with osteoarthritis using cluster analysis *Koji Iwasaki, et al.*, Dept. of Functional Reconstruction for the Knee Joint, Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ....S2017
- 2-8-20 Verification of gap reproducibility in functional alignment technique using digital tensor *Natsuki Sugimura, et al.*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ....S2017
- 2-8-21 Effects of the proximal first metatarsal osteotomy for hallux valgus on kinematic characteristics of the first tarsometatarsal joint during gait *Yasunari Ikuta, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S2018

11 : 30 ~ 12 : 30	Luncheon seminar 16	Moderator M. Akagi
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- 2-8-LS16-1 Know about knee osteoarthritis pain treatment, COOLIEF cooled radiofrequency treatment *Masahiko Ikeuchi*, Dept. of Orthop. Surg., Kochi Medical School, Kochi Univ....S2018
- 2-8-LS16-2 Cooled radiofrequency ablation: A novel pain relief approach for knee osteoarthritis *Antonia F. Chen*, Dept. of Orthop., Brigham and Women's Hosp....S2019

12 : 40 ~ 13 : 20	Free papers RA: Pathology	Moderators N. Nakagawa, A. Abe
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- 2-8-22 Effects of CDK6 inhibitor on TNF- α -induced rheumatoid arthritis synovial fibroblasts proliferation and mice collagen-induced arthritis *Ryoji Fujii, et al.*, IMS, St. Marianna Univ. School of Medicine...S2019
- 2-8-23 Functional analysis of CDK4/6 in TNF- α -induced rheumatoid arthritis synovial fibroblasts proliferation and collagen-induced arthritis mice *Rie Komatsu, et al.*, IMS, St. Marianna Univ. School of Medicine...S2020
- 2-8-24 Synovial fibroblasts contribute to arthritis exacerbation and worsening of pain in inflammatory arthritis by anti-PD-L1 antibody therapy *Hitoshi Toyoda, et al.*, Dept. of Orthop. Surg., Showa Univ....S2020
- 2-8-25 The possibility of DDX60 involvement in rheumatoid synovitis *Yuzuru Nakamura, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S2021
- 2-8-26 TLR3 signaling-induced interferon-stimulated gene 56 plays a role in the pathogenesis of rheumatoid arthritis *Hikaru Ishibashi, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S2021

13 : 40 ~ 14 : 20	Free papers RA: Treatments	Moderators Y. Kadono, Y. Takakubo
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- 2-8-27 2-deoxyglucose inhibits inflammation in SpA inflammation suppression in a mouse model of SpA *Takaya Sugiura, et al.*, Dept. of Orthop./Rheumatology, Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ....S2022
- 2-8-28 Ginger-derived extracellular vesicles suppress arthritis by anti-inflammatory effect and synovial fibroblast proliferation inhibition *Hiroki Kaneta, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S2022
- 2-8-29 Anti-inflammation effects of Medermycin and analogues *Sho Inoue, et al.*, Dept. of Orthop. Surg., Kitasato Univ....S2023

- 2-8-30 Targeting nephroblastoma overexpressed (NOV) suppresses pathological processes of rheumatoid arthritis in experimental mouse model
 *Taiki Tokuhiro, et al.*, Dept. of Orthop. Surg.,
 Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ.···S2023
- 2-8-31 Antigen-nonspecific differentiation of peripheral helper T cells in rheumatoid arthritis
 *Ryosuke Tsurui, et al.*, Dept. of Orthop. Surg., Clinical Medicine,
 Graduate School of Medical Sciences, Kyushu Univ.···S2024

14 : 40 ~ 15 : 30	Free papers Biomaterials	Moderators K. Sairyo, H. Takahashi
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- 2-8-32 Comparison of osteogenic effects of titanium and strontium titanate deposited PEEK using magnetron sputtering
 *Masato Ikuta, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.···S2024
- 2-8-33 An innovative drug delivery system for bone regeneration using acidic-peptide conjugated low molecular weight heparin ··· *Naoya Iwata, et al.*, Dept. of Orthop. Surg., Div. of Disease Control,
 Research field of Medical Sciences, Graduate School of Medicine, Gifu Univ.···S2025
- 2-8-34 Mechanism for enhanced osseointegration of implants coated with biocompatible polymers: Observations of cortical bone porosity
 *Taku Ikegami, et al.*, Dept. of Orthop. Surg., The Jikei Univ. School of Medicine···S2025
- 2-8-35 Fabrication of high-performance magnesium alloy medical implants
 *Kosei Takata, et al.*, Dept. of Orthop. Surg., Faculty of Life Sciences, Kumamoto Univ.···S2026
- 2-8-36 Evaluation of biodegradability metal implants with controlled dissolution rates *in vivo*
 *Ryo Maekawa, et al.*, Dept. of Orthop.,
 Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine···S2026
- 2-8-37 Modified intravascular stent for microvascular suture in a rat femoral artery
 *Kosuke Maeda, et al.*, Dept. of Orthop. Surg., Keio Univ.···S2027

2nd Day October 18 Poster 1

9 : 30 ~ 10 : 00	Poster Bone: Regeneration, treatments	Moderators K. Horiuchi, A. Maeyama
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- 2-Po-1 Comparison between autologous bone grafting and bone morphogenetic protein 2 placement in bone regeneration using new Masquelet technique rabbit model
 *Yuya Yamamoto, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine···S2027
- 2-Po-2 Masquelet technique using a mouse's femur critical-sized bone defect model: Effects of different fixation (plate and intramedullary nail fixation) methods on induced membrane
 *Tatsuru Sonobe, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ.···S2028
- 2-Po-3 Glucocorticoids but not NSAIDs inhibit induced membrane formation in Masquelet technique: A study in a rat femoral bone defect model
 *Takushi Nakatani, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba···S2028
- 2-Po-4 Bone metabolism and bone healing process of Masquelet technique in a rat femoral critical sized bone defect model ··· *Masao Suzuki, et al.*, Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp.···S2029
- 2-Po-5 The effect of local administration of microRNA on the fixation strength of artificial joint implants and peri-implant bone in an ovariectomized rat model of osteoporosis
 *Shinichi Ueki, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ.···S2029
- 2-Po-6 *In vivo* osteogenic capability of lansoprazole: Exploration of the feasibility and utility in preclinical settings *Kenichi Mishima, et al.*, Dept. of Orthop./Rheumatology,
 Musculoskeletal and Cutaneous Surg., Program in Integrated Medicine,
 Graduate School of Medicine, Nagoya Univ.···S2030

10 : 00 ~ 10 : 30	Poster Bone: Fracture	Moderators T. Matsugaki, T. Karube
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- 2-Po-7 Sequential therapy with parathyroid hormone and sclerosin antibody for bone healing in mice
 *Atsushi Mihara, et al.*, Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine...S2030
- 2-Po-8 Investigation of the mechanism of fragility fracture of the pelvis caused by femoral limb position
 change: Reproduction of lateral fall by finite element method
 *Kunihiko Arakawa, et al.*, Teikyo Univ...S2031
- 2-Po-9 A case of effective application of somato-cognitive coordination therapy using virtual reality
 technology for femoral neck fracture complicated with post-stroke hemiparesis
 *Keito Shinmoto, et al.*, mediVR Rehabilitation Center Tokyo...S2031
- 2-Po-10 Bone reconstruction cases with Masquelet method for Gaultilo 3B Tibia open fracture
 *Yuta Hayashi, et al.*, Dept. of Musculoskeletal Traumatology and Reconstructive Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S2032
- 2-Po-11 Outcome of ligament reconstruction for Lisfranc joint dislocation fractures: A study of
 post-treatment for early loading
 *Shota Ichikawa, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S2032
- 2-Po-12 Outcome of ligament reconstruction in Lisfranc joint dislocation fractures
 *Shota Ichikawa, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S2033

10 : 30 ~ 11 : 00	Poster Spinal cord	Moderators S. Soshi, J. Ueno
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- 2-Po-13 Control of glial scar formation location via type III collagen-ADGRG1 pathway in spinal
 cord injury *Gentarō Ono, et al.*, Dept. of Orthop. Surg., Clinical Medicine,
 Graduate School of Medical Sciences, Kyushu Univ...S2033
- 2-Po-14 Assessment of stress tolerance and communication by ultrasonic vocalization after spinal cord
 injury in mice
 *Isamu Sasaki, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S2034
- 2-Po-15 Improving chopstick use during meals in a patient with chronic cervical spinal cord injury:
 A case on somatosensory-cognitive coordination therapy
 *Yuya Ishibashi, et al.*, mediVR Rehabilitation Center Tokyo...S2034
- 2-Po-16 Clinical results of condoliase for young patients under 20 years old
 *Atsushi Yoshioka, et al.*, Hachiya Orthop. Hosipital...S2035
- 2-Po-17 Elucidation of the mechanism of immunoreceptor CD300 ablockage for acute spinal cord injury
 in mice *Shun Okuwaki, et al.*, Dept. of Orthop. Surg., Univ. of Tsukuba...S2035

2nd Day October 18 Poster 2

9 : 30 ~ 10 : 00	Poster Motion analysis: Lower limb 1	Moderators A. Yonekura, A. Suzuki
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- 2-Po-18 *In vivo* kinematic analysis of cruciate substituting mobile-bearing total knee arthroplasty
 *Takahiro Arakawa, et al.*, Orthop. Surg., Sensory and Motor System Medicine,
 Surgical Sciences, Graduate School of Medicine, The Univ. of Tokyo...S2036
- 2-Po-19 Evaluation of lateral thrust before and after HTO using acceleration
 *Yusuke Yamamoto, et al.*, Dept. of Orthop. and Rehabilitation Medicine,
 Faculty of Medical Sciences, Univ. of Fukui...S2036
- 2-Po-20 Comparison of 3D lower limb alignment during gait stance phase in healthy knee using image
 matching method with anteroposterior X-ray fluoroscopy images: A comparison with the
 standing position *Tatsuya Soeno, et al.*, Dept. of Orthop. Surg., Niigata Medical Center...S2037

- 2-Po-37 Adipose-derived stromal vascular fraction suppresses osteoarthritis progression via M2 macrophages
 *Yuma Onoi, et al.*, Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine...S2045
- 2-Po-38 Rate of hinge fractures and hinge point after medial closed wedge distal femoral osteotomy for valgus knee *Shunsuke Akai, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ...S2046
- 2-Po-39 Effect of freeze dried platelet factor concentrate concentration on the therapeutic effect on a rat model of knee osteoarthritis
 *Yoshitaka Nakao, et al.*, Dept. of Orthop. Surg., Hyogo Medical Univ...S2046
- 2-Po-40 Intra-articular diclofenac etalhyaluronate has superior inflammatory pain suppression and joint protection compared to hyaluronic acid in a moniodoacetate rat osteoarthritis model
 *Soichiro Tokeshi, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S2047

10 : 30 ~ 11 : 00	Poster Osteoarthritis 5	Moderators M. Morita, S. Abe
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- 2-Po-41 Relationship between acetabular coverage on simple radiographs and dynamic hip instability in the sagittal plane: a study using CT sagittal dynamic imaging
 *Yasushi Yoshikawa, et al.*, Dept. of Orthop. Surg., Showa Univ...S2047
- 2-Po-42 Tendency of accumulation of advanced glycation end-products AGEs and enzymatic crosslinks in human meniscus and meniscus posterior root
 *Rena Hagiwara, et al.*, Dept. of Orthop. and Spinal Surg.,
 Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ...S2048
- 2-Po-43 Quantitative evaluations of meniscal signal intensity after pullout repair for medial meniscus posterior toot tears *Koki Kawada, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ...S2048
- 2-Po-44 Exploring biomarkers of efficacy of platelet rich plasma
 *Ryoka Uchiyama, et al.*, Dept. of Orthop. Surg., Surgical Science, Tokai Univ...S2049
- 2-Po-45 Lat model of post-traumatic ankle osteoarthritis caused by ligamentous injury
 *Yukio Mikami, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S2049

2nd Day October 18 Poster 4

9 : 30 ~ 10 : 00	Poster Tendon, ligament 1	Moderators K. Nishimura, T. Aoki
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- 2-Po-46 The effects of fibroblast growth factor-2 (FGF-2) on Achilles tendon injury in rats
 *Yuki Fujikawa, et al.*, Dept. of Musculoskeletal Surg.,
 Dept. of Multimodality Therapy for Cancer, Mie Univ. Graduate School of Medicine...S2050
- 2-Po-47 Effects of extracorporeal shock wave and platelet rich plasma therapy in a rat models of acute Achilles tendon adhesion inflammation
 ... *Fumihide Terakawa, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S2050
- 2-Po-48 Role of PI3k/Akt signaling in Achilles tendon injury in adult mice
 *Koki Kato, et al.*, Dept. of Orthop. Surg., Div. of Disease Control,
 Research field of Medical Sciences, Graduate School of Medicine, Gifu Univ...S2051
- 2-Po-49 Development study of surgical techniques for endoscopic flexor tendon suture using cadavers
 *Takeru Yokota, et al.*, Dept. of Orthop. Surg., Fukushima Medical Univ...S2051
- 2-Po-50 Examination of CGRP expression by administration of stem cell supernatant in rats rotator cuff tear model *Kosuke Inoue, et al.*, Dept. of Orthop. Surg., Kitasato Univ...S2052
- 2-Po-51 Study of ulnar variance change with dynamic loading
 ... *Kinshiro Nabeshima, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ...S2052

10 : 00 ~ 10 : 30	Poster Tendon, ligament 2	Moderators M. Nozaki, H. Toyoda
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- 2-Po-52 The expressions of Scleraxis and Sox9 in the thickened ligamentum flavum from patients with lumbar spinal canal stenosis *Kiyotaka Nagashima, et al.*, Musculoskeletal Science, Yokohama City Univ. Graduate School of Medicine...S2053
- 2-Po-53 The expression of MMP13 and ASMA increased in the ligamentum flavum of rats by induction of posterior lumbar instability *Yuta Goto, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences...S2053
- 2-Po-54 Pathophysiology and therapeutic intervention of anterior knee pain (AKP) during knee-flexed loading after anterior cruciate ligament (ACL) reconstruction with bone-patellar tendon-bone (BTB) graft *Ayaka Tanaka, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ...S2054
- 2-Po-55 Assessment of knee stability in single vs. double-bundle ACL and ALL reconstructions: Quantitative assessment using an inertial sensor in the pivot-shift test *Hiroaki Fukushima, et al.*, Dept. of Orthop. Surg., Nagoya City Univ., Graduate School of Medical Sciences...S2054
- 2-Po-56 Factors affecting quantitative value of the pivot shift test using a navigation system in ACL injured knee *Atsuo Nakamae, et al.*, Dept. of Orthop. Surg., Graduate School of Biomedical and Health Sciences, Hiroshima Univ...S2055

10 : 30 ~ 11 : 00	Poster Muscle	Moderators A. Myoui, K. Uehara
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- 2-Po-57 Potential involvement of fibro-adipogenic progenitors in the regulation of immobilization-induced muscle atrophy in mice *Yoshiyuki Takahashi, et al.*, Dept. of Orthop. Surg., Keio Univ...S2055
- 2-Po-58 Establishment of a method for reconstruction of the functional limb after severe defect of soft tissue using a decellularized skeletal muscle *Shiro Fukuoka, et al.*, Dept. of Orthop. Surg., Science of Functional Recovery and Reconstruction, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ...S2056
- 2-Po-59 Development of a novel animal model of disuse-induced skeletal muscle atrophy and its electrophysiological and histological characteristics *Yusuke Muranaka, et al.*, Dept. of Orthop. Surg., Faculty of Medicine and Graduate School of Medicine, Hokkaido Univ...S2056
- 2-Po-60 The scalenus anterior muscle is adjacent to the parietal pleura at its insertion *Toshiya Nito, et al.*, Dept. of Orthop. Surg., Yamagata Univ...S2057
- 2-Po-61 Anatomical features of the vastus medialis obliquus bundle affecting the running course of the medial knee sensory branch with special reference to the its innervation pattern *Hiroya Akase, et al.*, Dept. of Orthop. Surg., Oita Univ...S2057
- 2-Po-62 5-Aminolevulinic acid increases skeletal fast-twitch muscle fibers *Hiromori Sagae, et al.*, Res. Ctr. for Mol. Genet., Yamagata Univ...S2058

2nd Day October 18 Poster 5

9 : 30 ~ 10 : 00	Poster Pain 1	Moderators T. Ushida, R. Uesato
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- 2-Po-63 A effective case of somato-cognitive coordination therapy for high school baseball player with pain during pitching *Yuya Ishibashi, et al.*, mediVR Rehabilitation Center Tokyo...S2058
- 2-Po-64 Efficacy of orthotic therapy for nocturnal pain in frozen shoulder *Tomonori Kenmoku, et al.*, Dept. of Orthop. Surg., Kitasato Univ...S2059

- 2-Po-65 The incidence rate, risk factors, and treatment modalities for pre-CRPS following distal radius fracture
 *Yosuke Kano, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S2059
- 2-Po-66 Development of dorsal finger fixation brace using 3D printer: Orthosis that can fix MP joint flexion position and train PIP joint ROM
 *Hideo Takata, et al.*, Dept. of Orthop. Surg., Toyama Pref. Rehab. Hosp....S2060
- 2-Po-67 Efficacy of radial shock wave therapy on rat models of adjuvant arthritis
 *Yu Hiraoka, et al.*, Orthop. Surg., Chiba Kaihin Municipal Hosp....S2060
- 2-Po-68 A case of the contribution of virtual reality-based somato-cognitive coordination therapy to alleviating chronic pain in patients *Yuki Torikai, et al.*, mediVR Rehabilitation Center Tokyo...S2061

10 : 00 ~ 10 : 30	Poster Pain 2	Moderators H. Suzuki, Y. Niizeki
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- 2-Po-69 (Withdrawn)
- 2-Po-70 A simple way to assess multiple domains of pain at the first visit in patients with shoulder contracture
 *Masashi Izumi, et al.*, Rehabilitation Center, Kochi Medical School Hosp....S2062
- 2-Po-71 Evaluation of factors affecting acute postoperative pain after arthroscopic rotator cuff repair
 *Yohei Harada, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Biomedical and Health Sciences, Hiroshima Univ....S2062
- 2-Po-72 Association of pain area extent with imaging severity and anxiety state in advanced stage osteoarthritis of the knee
 *Ryoto Kura, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine...S2063
- 2-Po-73 Association between the phenotype of ENTPD1-positive fibroblasts in synovial tissue of osteoarthritis patients and pain *Maho Tsuchiya, et al.*, Dept. of Orthop. Surg., Kitasato Univ....S2063
- 2-Po-74 Investigation of the relationship between semaphorin gene expression and pain in extra-hip joint adipose tissue *Hiroki Saito, et al.*, Dept. of Orthop. Surg., Kitasato Univ....S2064

10 : 30 ~ 11 : 00	Poster Pain 3	Moderators Y. Hoshino, R. Yamamoto
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- 2-Po-75 Development of a porcine model of complex regional pain syndrome
 *Sota Saeki, et al.*, Div. of Human Enhancement & Hand Surg.,
 Program in Integrated Medicine, Graduate School of Medicine, Nagoya Univ....S2064
- 2-Po-76 The efficacy of intraoperative subfascial multimodal analgesia for adolescent scoliosis surgery: A double blinded randomized controlled trial
 *Tomohiro Yamada, et al.*, Dept. of Orthop. Surg., Hamamatsu Univ. School of Medicine...S2065
- 2-Po-77 Safety and tolerability of tramadol hydrochloride immediate-release/extended-release tablet for chronic pain associated with lumbar spine disease
 *Tsutomu Akazawa, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine...S2065
- 2-Po-78 Analgesic effects of the combination of mirogabalin and diclofenac sodium on the neuropathic pain in rat
 *Hiroto Chikubu, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Chiba Univ....S2066
- 2-Po-79 Gender differences in joint degeneration and pain behavior in the rat knee OA model
 *Kohei Hashimoto, et al.*, Dept. of Orthop. Surg., Aichi Medical Univ....S2066

2nd Day October 18 Poster 6

9 : 30 ~ 10 : 00	Poster Foot and ankle joint	Moderators N. Kanzaki, H. Kurokawa
2-Po-80	Analysis of changes in metatarsal head height after hallux valgus surgery using weight-bearing computed tomography <i>Yasutaka Murahashi, et al.</i> , Dept. of Orthop. Surg., Sapporo Medical Univ.···S2067	
2-Po-81	CMOS is useful for extremely severe hallux valgus with lesser toes disorder <i>Tomoko Karube, et al.</i> , Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine···S2067	
2-Po-82	Ultrasound-guided regional anesthesia for foot and ankle surgery <i>Masaki Yugami, et al.</i> , Dept. of Orthop. Surg., Faculty of Life Sciences, Kumamoto Univ.···S2068	
2-Po-83	Three-dimensional analysis of windlass mechanism and metatarsus primus elevatus using a weight-bearing computed tomography in patients with hallux rigidus <i>Takumi Kihara, et al.</i> , Dept. of Orthop. Surg., The Jikei Univ. School of Medicine···S2068	
2-Po-84	Correlation between the distance of anterior drawer measured by electromagnetic sensor and capacitance-type sensor in patients with lateral ankle instability <i>Masamune Kamachi, et al.</i> , Dept. of Orthop. Surg., Kobe Univ. Graduate School of Medicine···S2069	
2-Po-85	Investigation of hip rotational change before and after total hip arthroplasty evaluating foot rotation <i>Kazuhiro Yamazaki, et al.</i> , Dept. of Orthop. Surg., Yamaguchi Univ. Graduate School of Medicine···S2069	

10 : 00 ~ 10 : 30	Poster Infection, others	Moderators S. Matsubara, A. Terakado
2-Po-86	Mechanisms of infection control of posterior fixation in pyogenic spondylitis: Initial evaluation of a pyogenic spondylitis - Posterior fixation rat model <i>Hisanori Gamada, et al.</i> , Dept. of Orthop. Surg., Univ. of Tsukuba···S2070	
2-Po-87	A case of arthrodesis with Masquelet technique for 1st MTP Joint purulent arthritis associated with hallux valgus <i>Yui Akiyama, et al.</i> , Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine···S2070	
2-Po-88	Approach to reduce the burden of orthopaedic surgeons for nighttime emergency patients at our hospital <i>Kentaro Sato, et al.</i> , Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine···S2071	
2-Po-89	Problem with reliability of self-diagnosis of orthopaedic diseases by ChatGPT and how to improve it <i>Tomoyuki Kuroiwa, et al.</i> , Dept. of Orthop. and Spinal Surg., Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental Univ.···S2071	
2-Po-90	Consistency between guardians' and orthopaedic surgeons' responses on musculoskeletal screening items <i>Manato Horii, et al.</i> , Center for Advanced Joint Function and Reconstructive Spine Surg., Graduate School of Medicine, Chiba Univ.···S2072	

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9 : 30 ~ 10 : 00	Poster Imaging analysis, computer 1	Moderators K. Kitsukawa, H. Sasanuma
2-Po-91	Analysis of reverse shoulder arthroplasty using preoperative 3D software <i>Kazuki Yoshida, et al.</i> , Dept. of Orthop. Surg., Juntendo Univ. Urayasu Hosp.···S2072	
2-Po-92	Calculation formula of rotator cuff tear area using radial MRI <i>Yuji Yamamura, et al.</i> , Dept. of Orthop. Surg., Sapporo Medical Univ.···S2073	

- 2-Po-93 Accuracy verification experiment of three-dimensional cartilage model in the elbow joint constructed from clinical MRI
 *Tasuku Miyake, et al.*, Dept. of Orthop. Surg., Graduate School of Medicine, Osaka Univ.··S2073
- 2-Po-94 Finite element analysis of phalangeal fracture fixation using Kirschner wires: Examination of the complete fracture model *Yukinori Hayashi, et al.*, Dept. of Orthop., Jichi Medical Univ.··S2074
- 2-Po-95 Learning curve of the elbow arthroscopy by NanoScope
 *Sho Yamauchi, et al.*, Dept. of Musculoskeletal Sports Medicine,
 Research and Innovation, Nagoya City Univ., Graduate School of Medical Sciences··S2074

10 : 00 ~ 10 : 30	Poster	Imaging analysis, computer 2	Moderators	K. Wada, Y. Shimizu
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- 2-Po-96 Significance of CT Hounsfield Units measurements in patients with ankylosing spinal disorder in thoracolumbar injuries
 *Atsushi Suzuki, et al.*, Dept. of Orthop. Surg., Hirosaki Univ. Graduate School of Medicine··S2075
- 2-Po-97 Percutaneous pedicle screw malposition in robot-assisted spine surgery
 *Yoshiaki Torii, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine··S2075
- 2-Po-98 (Withdrawn)
- 2-Po-99 Lateral spondylolisthesis and axial rotational deformity increase by flexion motion in adult spinal deformity with degenerative scoliosis *Nobuaki Takeura, et al.*, Dept. of Orthop.,
 Graduate School of Medical Science, Kyoto Prefectural Univ. of Medicine··S2076
- 2-Po-100 The waistline asymmetry in patients with idiopathic scoliosis patients with thoracolumbar/lumbar curve *Tomohiro Banno, et al.*, Dept. of Div. of Surg. Care,
 Morimachi Hamamatsu Univ. School of Medicine··S2077
- 2-Po-101 Efficacy of rib anchor to prevent PJK after posterior spinal fusion: Analysis using finite element method *Atsuko Tachibana, et al.*, Keiyu Orthop. Hosp. Keiyu Spine Center··S2077

10 : 30 ~ 11 : 00	Poster	Imaging analysis, computer 3	Moderators	T. Kabata, A. Sato
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- 2-Po-102 Development of an orthopaedic specialist-level chatbot using retrieval-augmented generation (RAG) with large language models *Juntaro Maruyama, et al.*, Dept. of Orthop. Surg.,
 Graduate School of Medicine, Chiba Univ.··S2078
- 2-Po-103 Evaluation of cup placement accuracy and measurement of leg lengthening and offset change of the ROSA Hip System
 *Yusuke Ozaki, et al.*, Dept. of Orthop. Surg., St. Marianna Univ. School of Medicine··S2078
- 2-Po-104 Investigation of factors that cause subchondral insufficiency fracture of the femoral head: A finite element model analysis
 *Jun Fujita, et al.*, Dept. of Orthop. Surg., Fukuoka Central Hosp.··S2079
- 2-Po-105 The introduction of MR (mixed reality) in orthopaedic surgery
 *Takashi Koura, et al.*, Dept. of Orthop. Surg.,
 Science of Functional Recovery and Reconstruction, Faculty of Medicine,
 Dentistry, and Pharmaceutical Sciences, Okayama Univ.··S2079
- 2-Po-106 Biomechanical effects of plate placement on bone healing after medial open wedge high tibial osteotomy *Shunta Hanaki, et al.*, Dept. of Orthop. Surg., Nagoya City Univ.,
 Graduate School of Medical Sciences··S2080
- 2-Po-107 Examination of tibial component angle in UKA using an accelerometer-based portable navigation with 3D analysis software
 *Yasutaka Amano, et al.*, Dept. of Orthop. Surg., Shiga Univ. of Medical Science··S2080

2nd Day October 18 Room 1

17 : 40 ~ 17 : 50 Closing ceremony